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PERSPECTIVES ON EDUCATION FOR ALL

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Perspectives on Education for All

Population, Education, and Society Programme

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Social Sciences Division

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FOREWORD

Since the late 1950s, education was expected to play a predominant role in international development. Today, in the midst of a deep development crisis in the Third World, fated by economic stagnation and decline, this reasoning still fuels the hopes for progress and modernization of many countries in the developing world. Literacy and a minimum of education and schooling are seen once again as prerequisites to overcoming poverty. Today, international efforts and government initiatives promote basic education as one of the means to treat the illness of under-development.

The **World Conference on Education for All** held in Jomtien, Thailand in March of 1990 marked the central place that education is expected to have in development in the 1990s. Since then, various efforts have began to take shape among donors and international organizations, governments and non-governmental organizations to bring the principles agreed upon at the Conference into practice.

The Population, Education and Society Program of the Social Sciences Division of IDRC is pleased to present here a selection of articles dealing with some of the critical issues addressed in Jomtien. They reflect different perspectives from which issues of basic education in the 1990s can be examined.

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A CRITICAL REVIEW OF THE EDUCATION FOR ALL (EFA) BACKGROUND DOCUMENTS

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Working Document Prepared for the
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EXECUVITVE SUMMARY

The notion of a new vision proposed in the EFA documents is related to modernization and human capital theories, which are the underlining rationale of the EFA documents. In spite of the difficulties posed by the characteristics of the informal labor force, particularly in the Third World, formal, informal and nonformal education could be provided through very imaginative initiatives which may not fall under the rationale of Human Capital and technocratic planning. The lack of a thorough discussion of informal economies and education in documents that attempt to provide basic education for children, youth and adults may show both, the drawbacks of an economicist theory of education that tend to operate with neoclassical economics assumptions in the context of formal markets, and the difficulties of governments to intervene in the development of informal economies. The relationship between informal economies and basic education should be addressed in the EFA policy documents.

The assumptions about the role of basic education in developing societies seems to be clear in the EFA documents: to upgrade the qualifications and skills, and to improve the attitudes and values of the population that will work mostly in manual occupations. But what would be the implication of the EFA proposal for industrialized societies? If the EFA proposal comes to fruition and predominates in the Third World, and the proposals for excellence in education predominate in the industrialized societies, then the scenario of a large pool of qualified manual labor (i.e. workers who know reading, writing, and basic numeracy) in the Third World compared to a sizable number of highly qualified mental labor and skill workers in the industrialized societies may be a possibility. The question is why to reinforce instead of striving to change the prevailing pattern of social and international division of labor?

The characteristics of the potential learners or clientele for the EFA proposal needs to be examined. The comparison of the Latin American with the European data will show only formal, not substantive similarities. However, in the perspective coined in the EFA proposal, all learners listed in the proposal should reach eventually the same basic education level. This proposal may eventually prove to be part of a new educational utopia given the historical-structural conditions of the societies and their dynamics as well as the limited availability of resources, incentives, and employment possibilities for the learners, particularly in the developing world.

Perhaps one of the best element in the EFA proposal is the suggestion to conduct more research, expanding the amount of information available across countries, and producing more analyses than can be used for policy planning. This initiative should be highlighted as a key component of any new strategy of learning. However, the imperatives of scientific research demands time and resources. Perhaps the EFA proposal should consider supporting research as a prerequisite to consider any educational reform at a global scale.

Regarding the interactions between donor agencies and governments in the developing world a key concern is external interference and manipulation of endogenous policies. Perhaps the best way to avoid external interference in local decision making and policy operation will be to continue with bilateral and multilateral negotiations between governments, development banks, and donor agencies, instead of creating a supra-national agency of donors. The EFA proposal should refrain to produce the set of recommendations for creating a pool of resources among donor agencies to support the EFA proposal, and it may remain as an indicative document, as an input in the bilateral and multilateral negotiations of donors and lending agencies and country-recipients.

The WCEFA/Background Document suggest that learning packages or modules for basic education should be produced and distributed among those participants in the EFA project. This suggestion may prove complicated for the less developed societies for a number of reasons outlined below.

There is a cursory treatment at best of the external debt of developing countries in the EFA documents. This is a crucial issue and should be dealt with accordingly in the rationale of any EFA project. Similarly, the issue of technological dependency should be addressed when discussing the need for a proper balance of all educational levels, and the reapportionment of financial resources among sectors in a given educational system.

In spite of its overtly democratic principles, based on an ethic of solidarity, wider consultation and more participation from all concerned sectors should be achieved. Eventually an alternative Charter and Background document should be prepared in consultation with scholars, concerned donor agencies and governments and non-government organizations in the Third World.

INTRODUCTION: THE EDUCATION FOR ALL (EFA) DOCUMENTS

The Education For All proposal (EFA) reviews the symptoms of crisis at the global level, the major achievements and promising trends and factors, the potential contribution of education to social and economic development and the resolution of global problems, and discusses the necessity to meet the basic learning needs of all, from ethical and socio-economic standpoints. After defining what learning needs of all is, the documents propose a new vision that emphasizes learning achievement, flexible and varied forms of education, mobilizing new resources, establishing new partnerships, and enhancing the environment for learning.

At the outset I should say that the documents (particularly the background document) reflect some standard assumptions of neoclassical economics as expressed in Human Capital theory. These neoclassical assumptions are blended with ethical and moral considerations that ameliorate but do not modify in essence, the fundamental economicist rationale for policy formation deriving from Human Capital perspectives. In addition, the background document has additional information, usually presented as windows with qualitative information on particular micro experiences that are relevant for the task at hand (i.e. "Street Children in Brazil", "The Highlander Center", etc).

The information presented is rich and varied, and reflects a state-of-the-art educational research, based on comparative, cross-national, macro-statistical information. Input-output analysis and policy research analysis, the type of research usually supported by many of the major donors in education is presented as the key tools for planning. Research findings are organized to support policy conclusions of the documents, and to that extent, the more qualitative observations or innovative experiences are neglected in the policy concerns and recommendations of the documents.

There is a strong instrumental rationale for policy-planning in the document, assuming that in spite of the regional and country disparities, the overall purpose of planning is similar across the board, thus the priorities should be set at a global level.

In short, what the documents reflect is an attempt to coordinate external aid to education and enhance greater cooperation among external and domestic partners which would be mutually beneficial (WCEFA/Background document: 83; 5.53). The documents attempt to create a new, world-wide consensus about the priorities of development (social and economic), the educational priorities for the next decade, the strategies and priorities of educational financing, and the political strategies of support and contextualization of the overall EFA project, priorities and financing in the diverse countries. This world-wide consensus is built on the notion of a new vision.

Why has the Inter-Agency Commission chosen the term "vision" instead of say, "approach," "theory," or "paradigm"? It is difficult to discern why such an ambiguous term has been selected to signal the foundations of a new project for a worldwide educational reform. The notion of approach may be too vague for the purposes at hand, and the notion of paradigm, although widely diffused and used in academia, may be too technical for discussions with government officials.

The Commission may have decided against using the term "new theory" for multiple epistemological reasons, particularly when the locus of the argument can be so easily placed in the context of human capital theory. A theory that is not excepted of criticisms for its assumptions and empirical validation. I will now discuss briefly some of the assumptions of human capital theory as they relate to basic education--particularly adult basic education--, and I will show some of the problems with that theory.

HUMAN CAPITAL THEORY AND EFA

Human Capital theory works in the framework of a theory of modernization. The modernization approach considers education in general, and adult education in particular, as a variable intimately linked to the processes of socio-economic development. Development, in its turn, is conceived as growth of the social product, taking as models the experience of advanced Western capitalist societies.

But why is it that these societies become developed while the countries of the Third World remain stagnant or develop very slowly? The response for this approach is simple: because individuals in advanced societies enjoy a basic social personality which possesses standard values opposed to those in underdeveloped societies. Individuals in industrial advanced capitalism cultivate the attitude of achievement, an universalistic perspective and a specialized and functional division of labor, while traditional individuals underdeveloped societies struggle helplessly with an orientation toward ascriptive statuses, a particularistic perspective on the world, and an non-specialized division of labor (Torres, 1990).

These characteristics render difficult the passage from economic backwardness to economic development, as in the case of advanced industrial societies. Knowing the point of departure and arrival of the process of development, this approach points to the necessity of identifying the mechanisms through which this passage can be realized in different situations. Literacy and basic education count among the privileged mechanisms for increasing contacts with modern societies (and their products), disorganizing traditional cultures (often of oral origin) which are considered an element of backwardness, and permitting development of social heterogeneity in the adoption of innovations.

Mark Blaug and others have noted that literacy and the basic education of adults in general contribute to economic development in distinct forms, by:(1) increasing the productivity of the newly literate; (2) increasing the productivity of those who work with the newly literate; (3) expanding the diffusion of the general knowledge of individuals (training in health and infant nutrition) and generally reducing the cost of transmitting practical information; (4) stimulating the demand for technical training and vocational education; (5) acting as an instrument for selection of the most valuable elements of the population and enhancing their occupational mobility; (6) strengthening economic incentives, i.e. the tendency of people to respond positively to an increment of compensation for their efforts (Blaug, 1966). In these terms, authoritative political scientists like Karl Deutsch point to literacy as one of the most important elements in the process of modernization and the development of nations undergoing industrialization. In some cases it has been suggested that a literacy rate between 30% to 45% is a precondition for obtaining average per capita incomes between 200 and 300 dollars (UNESCO, 1968).

Diverse investigations have indicated there is a significant correlation between the percentage of illiterates and income per capita (.84), as well as between illiteracy and industrialization (.87). Further, the coefficient of multiple correlation for 54 countries between literacy, urbanization, recognition of the value of information and political participation was .91 (Lerner, 1958). In fact, George Psacharopoulos has argued from a Human Capital approach that:

> . . . economists have established the link between increases in the educational level of the labour force and economic growth. Similarly, they have documented a direct link between increases in the level of schooling in the population and distributional equity. Sociologists have established the relationship between education and upward social mobility. Historians

> have documented the link between early rises in literacy and the economic take-off of nations. And a variety of other disciplines have established the relationship between education and further developmental outcomes like health, sanitation and fertility (Psacharopoulos, 1988: 1).

Furthermore, regarding basic education, Marin and Psacharopoulos have argued (1976) that in Mexico, giving primary education to 10% of those who lack it, would reduce a measure of income inequality by 10%.

A second line of argument stresses that the social psychological level of modernization entails a fundamental change in values, attitudes and expectations; for the latter, changes in adult education are very relevant. Daniel Lerner suggests that (1) literacy is the skill which underlies the whole process of modernization; (2) that with literacy come other benefits beyond that of reading and writing. This is one of the principle interests of the study of Howard Schuman, Alex Inkeles and David S. Smith in arguing that the rates of literacy are strongly associated with a broad range of variables which are the cause or result of development. Thus, for Daniel Lerner, literacy and the basic education of adults permits the anticipation of social psychological changes which are a substantial part of the theory of modernization, modernization is then understood as:

> . . . a complex but coherent group of psychological dispositions manifested in general qualities such as the sense of efficiency, orientation toward new experiences, interest in planning, all of which are linked, in turn, with a certain willingness to participate in institutional relations such as being an active citizen, giving science a high value, and maintaining autonomy in kinship relations (Lerner, 1958: 63-64).

Finally, adult education and literacy are considered essential factors in the process of social mobilization. Huntington claims that one of the most relevant aspects in the process of political modernization is the change in attitudes, values and expectations, changes that are a direct consequence of literacy, education, increases in communications, the exposure to mass media, and urbanization (Huntington, 1971).

The range of aims and goals of basic education as foreseen by human capital theorist varies from developing positive attitudes towards co-operation, work, community and national development and further learning, to the teaching of functional literacy and numeracy; from providing a scientific outlook toward health, agriculture and the like, to incorporating functional knowledge and skills; from preparing individuals to enter into the labor market or strengthening their current occupational position, to making available functional knowledge and skills necessary for civic participation. These assumptions are overtly present in the documents of the Inter-Agency Commission, particularly in the background document.

What are the problems with the assumptions and research findings inspired by Human Capital theory? The contribution of basic education to growth is smaller than the early human capital theorists and development economists thought.

The correlation between earnings and education picks up many other influences on earnings that are also correlated with schooling but should not be attributed to it (Carnoy, 1982; Torres, 1988). Hence, much of the research has cast some doubts on the validity of the above stated premises. First, available evidence tends to suggest that the wage structure depends upon variables exogenous to individual productivity. These variables include gender, race, the nature of a firm's market of goods, maintenance of class structure in the face of meritocratic rules, degree of monopoly power in the market, and/or social class background (Carnoy et al, 1979; Carnoy, 1977: 39). Thus, differential rates of return to education are not primarily the result of inequality in the distribution of schooling, but refers instead to the basic unequal structures of capitalist societies (Carnoy, 1975: 5-6; Levin, 1980; Bowles, 1980: 207; Bowles, 1975: 47; Bacchus, Pannu and Torres, 1988).

In addition, the role of the State in education and income policy is a crucial variable in determining income distribution. In this sense, taxation, wage fixing, price control, inflation and employment policies are the means by which the State exercises this power -- policies that are out of reach of education programs (Torres, 1990).

A decisive standpoint from which to study the relationships between education, income distribution and capital accumulation is the theory of labor market segmentation. To be sure, for this theory, labor market conditions can be understood as outcomes of four segmentation processes: (1) segmentation into primary and secondary markets; (2) segmentation within the primary sector; (3) segmentation by race; and, (4) segmentation by gender. The primary and secondary segments are differentiated as follows:

> Primary jobs require and develop stable working habits; skills are often acquired on the job; wages are relatively high; and job ladders exist. Secondary jobs do not require and often discourage stable working habits; wages are low; turnover is high; and job ladders are few. Secondary jobs are mainly (though not exclusively) filled by minority workers, women and youth (Reich et al, in Carnoy, 1975: 1).

Although the theory of segmented labour markets has a particular relevance to advanced industrial societies, it does help us to understand that (adult) basic education in dependent capitalist societies simply prepares people for improving their chances to enter the secondary labor market.

However, the notion of segmented labour markets is assumed in the context of monopoly capitalism, and therefore granting a high degree of homogeneity for a given society. In Latin America, for instance, the segmentation processes could be considered simultaneously as an horizontal and a vertical process. In the "vertical level," the segmentation is due to the combination of modes of production (pre-capitalist and capitalist ones), which implied different labour markets for different workers. In the "horizontal level," however, the process of segmentation of labour markets, particularly in the most industrialized societies, is somehow similar to the discussion posed for the advanced industrial societies vis-à-vis historical specificities of the dependent societies.

The notion of labour market segmentation duly cautions us not to assume that education and training lead automatically to higher income distribution through increasing per capita productivity which leads, in turn, to higher earnings.

HUMAN CAPITAL THEORY AND A "NEW VISION"

If the notion of a new vision is retained, it will be convenient to emphasize its connection with standard modernization and human capital theories, and to show that Human Capital may not be the only theory capable of guiding policy planning, nor is it excepted of criticisms.

The issue is not only whether Human Capital theory works or not in the context of developing countries -- though there is enough evidence that it does not work as efficiently and smoothly as some of its proponents may suggest (La Belle, 1986). The question is why adopt a single rationale or theory when there may be many theories or rationales for policy planning that may prove successful. Let us consider for a minute the participation rates in adult education, as presented in the Background document (statistical information on pages 117-118). The six countries with the best rates of participation in adult education are Sweden (462), Tanzania (401), Norway (277), Philippines (237) Nicaragua (211) and the USSR (208). All of these seem to be, in the context of the EFA documents, successful stories of adult education planning.

It will be very difficult to argue that the Scandinavian approach to Folk Colleges, the "Education for Self-Reliance" policies developed in Tanzania, or the experience in Nicaragua after the revolution have all been guided by an economicist rationale ¦ la Human Capital. In the case of the Soviet Union, it will be very difficult to prove that a theory based on open market competition has guided human resource training in a communist society. Thus, the Philippines may be the only case, in this sample of a policy rationale inspired by human capital theory that claims success. With the globalization of human endeavors, as the documents claim, we should strive for a growing pluralization of the scientific understanding of education's role in development, not for adopting a dominant theory that has shown serious shortcomings.

Among the criticisms from a political economy perspective, a major drawback of Human Capital theory and modernization perspectives is that this theory virtually omits from consideration informal labor markets, and the potential contribution of educational planning for them. This issue is addressed in the following section.

INFORMAL LABOR MARKETS AND EDUCATION

Informal sectors refer to the informal economic activities undertaken by poor workers which not only generate income, but also promote efficient economic growth. The notion of "urban informal sector" was first used by the International Labour Office (ILO) in Kenya. These are some of the characteristics of this specific labor force and market: its units function with low capital investments and operating capital per worker; the working force does not require high training levels, nor formal educational inputs; their technical demands are minimal because their technology is simple or artisanal and the tools they use are either self-made, or second-hand, obsolete instruments. In Latin America, economists from the Economic Commission for Latin America and the International Labor Office have been studying informal labor markets for more than a decade.

The existence of informal (urban) sectors poses all sorts of complications for governments. These economies and labor sectors are difficult to tax, regulate, assess or measure statistically. They may be too heterogeneous or overlap too much to be easily included in the catalogue of occupations. It is difficult to ascertain whether these small enterprises have their own process of capital accumulation or instead rely on other sources from the formal economy. How workers are incorporated into the informal sector? In addition, do they expand and become incorporated into the "advanced" sectors of the economy -- as modernization theories propose -- or do they always remain at the margins (Monta¨o, 1976; Offe, 1985: 71-79; S¦enz, 1989).

Indeed, even in Western European societies, informal labor, considered as "social labor" can be characterized by "freedom of entry and exit, by considerable autonomy in the programming of activity as well as by non-discriminatory and legally guaranteed rights to income" (Offe, 1985: 79).

Of course, a discussion on informal labor markets is very relevant to education and to the purposes of EFA documents. The size of the population employed in the informal sectors in Latin America is quite large. For instance, in the metropolitan area of Mexico City, it was calculated in 1976 that 3.126.000 individuals were working in informal labor markets. This figure represented 38.2% of the employed population of the geographical area under consideration (S¦enz, 1989). In the eighties, with the fiscal crises and growing unemployment in the formal economies, this sector may have grown substantially as part of the service sector, which constitutes 56% of the GDP in Latin America (Latapí, 1985: 13).

In spite of the difficulties posed by the characteristics of the informal labor force, particularly in the Third World, formal, informal and nonformal education could be provided through very imaginative initiatives that may not need (or find) proper justification under the rationale of Human Capital Theory and technocratic planning (Latapí, 1985; Torres, 1990).

The lack of a thorough discussion of informal economies and education in documents that attempt to provide basic education for children, youth and adults, may show both the drawbacks of an economicist theory of education that tend to operate with neoclassical economics assumptions assuming a fairly high degree of formality and homogeneity in labor markets, and the difficulties of governments to intervene in the development (or control) of informal economies. These omissions should be solved in the EFA documents. Let us get back to the main assumptions of the documents and some of its recommendations.

A NEW GLOBAL INTERNATIONAL AND SOCIAL DIVISION OF LABOR?

There are three basic assumptions in the documents. First, there is a growing inter-dependency in the world-system, which calls for increasing actions of solidarity and collaboration between nations to address the symptoms of crisis. Second, once more the role of basic education is strategic for the resolution of these problems. A corollary of these two assumptions, and a third assumption in itself, is the notion of a zero-sum economy. Thus, with the exception of fresh funds deriving from cuts in military expending, there will be no new funds available in the global system to promote development at all levels in the next decade.

These three assumptions may be challenged. First, while there is a growing inter-dependency in many respects, there is a growing technological and scientific dependency between the core and the periphery of the capitalist system. Can basic education address this technological imbalance? I will return to this point below.

Second, the strategic notion of basic education to solve many of the problems and bottlenecks of the development process, although presented cautiously throughout the documents, may be questioned. It is still argued that "education is **the key** to a safer, healthier, more prosperous world and that basic learning is essential to economic, cultural and economic development" (Charter, preamble, my emphasis). Perhaps this is a reductionist and overtly too optimistic a perspective on the role of education in development, given the economic, fiscal and political constraints of peripheral capitalism. One of the most difficult notions in the document is the idea of a balance in the appropriation of resources between different levels of the educational system in light of the growing technological dependency of developing societies. I will return to this point in discussing the issue of technological dependency.

The third assumption of a zero-sum economy may not be entirely acceptable, particularly when the nations of Eastern Europe will become deeply incorporated into the economic exchanges of the world system in the next decade, attracting capital and buying and selling more industrial commodities. China, after the turmoil, has regained its accelerated pace of modernization, and still many countries in Africa and Latin America will offer tremendous opportunities for investments with available, in many cases qualified, and relatively cheap labor force. If through external investment and domestic savings employment can be promoted, this may help developing new internal markets for consumption.

Likewise by not considering the implications of the external debt in all its magnitude and inter-connections with social policies and education, a key element in the process of growth and political stability of democratic but dependent development of societies is left aside. By manipulating some of the key variables of the external debt in the proper way, a great deal of resources can be liberated to fuel the economic resurgence of dependent economies. In short, the grim assumption of a stagnating, zero-sum world -- economy may not resist closer scrutiny in the context of the current changes, or the possibility of manipulating certain economic variables in the world system -- I shall return to the issue of the external debt below.

Whether plausible or not, these three assumptions seem to underlie a basic purpose of the documents: to reinforce a new division of labor based on the technical qualification of the labor force and differential productivity of industrialized and developing societies. Education for all may be an attempt to mobilize international and national, financial, human, and material resources to promote the universalization of a set of skills, knowledge, values and attitudes in the labor force. This will allow capital (from industrialized societies, but also from domestic sectors in the developing world) greater flexibility and mobility in the world system, becoming less subject to states' controls and national constraints (i. e. inadequate surplus of basically qualified labor or challenges posed by a militant working class or active social movements). In this context, the issue of technological dependency should be addressed when discussing the possibility of a new division of labor.

In the EFA documents, there is no indication of how this technological dependency and imbalances between countries can be overcome. In fact, the underlying assumption seems to be that people (poor people, marginalized populations, etc.) will enhance their skills to survive in a more competitive market economy. But the position of the nations in the continuing of technological development will not be altered. Quite the contrary, if dependent-development societies will allocate their scarce funds (or whatever funds they can bring from outside donors) re-apropriating resources to achieve an appropriate balance among primary, secondary and other educational levels, the possibilities of using these resources for promoting technological advancement will be hampered.

Scientific and technological development usually takes place in higher education and in institutes of research and development in corporations. A common dilemma of democratic governments in dependent societies is how to subsidize basic education offered to the population at large, as a basic human right -- sometimes to previously neglected populations -- and, at the same time, how to find the amount of resources to continue promoting scientific and technological research -- which usually implies subsidizing an intellectual, scientific and technological elite that, through scientific and technological breakthrough will promote innovation and technological change. The answer of the EFA document to this dilemma is virtually to ignore it. The search for a balance, promoting more basic education without considering the technological implications, eventually may end up reinforcing the pattern of technological dependency; a dependency which may be considered as a fundamental cause of the present social and economic disparities between nations and social groups within nations.

It would not be surprising if some democratic governments in dependent development societies will have some reservations about the EFA initiative. By not addressing this issue of technological dependency between countries, and particularly the role of multinational corporations in this regard, the EFA documents practically suggest that to develop a common ground (i.e. basic education) in all societies is the only way to continue the process of development, even if this will entail hindering the development of higher education resources and techniques. The conclusion of that process seems to be an inevitable self-prophesy: the core, industrialized and highly technological societies will retain the lead in technological progress, and the peripheral, less developed and technologically dependent societies may, at best, become reservoirs of better qualified manpower and eventually raw materials.

In synthesis, the role of basic education in developing societies seems to be clear: to upgrade the qualifications and skills, and to improve the attitudes and values of the population that will work mostly in manual occupations. But what would be the implication of the EFA proposal for industrialized societies? How does the EFA proposal fits with the ongoing mainstream educational debates in industrialized societies?

The EFA initiative is very contrasting with the debate currently undergoing in many industrialized societies between equality and excellence in education. Let us consider for a minute the debate around curriculum formation in the United States. Two main proposals seem to struggle for recognition: the Paideia Proposal (Adler, 1982) and government and national commissions' reports such as A Nation at Risk (National Commission on Excellence in Education, 1983). Suggesting the need for a broader educational reform in the United States, "the Paideia proposal (...) argues that we must in essence return to the "great books" and the life of the mind, excluding electives and focusing only on academic knowledge that has met the test of time, and (...) A Nation at Risk (...) propose that curricula be more closely linked to the needs of national security, re-industrialization, new technology and 'hi-tech' jobs, and international competition" (Apple, 1988: 12; 106-149). There are, of course, other voices in the debate, many of them stressing the need to balance excellence with equality, but nobody, perhaps with the exception of professional adult educators, nongovernment organizations promoting literacy, and some concerned intellectuals (i.e. Kozol, 1985) will strive to promote in the United States the type of proposal represented by the EFA documents.

Whatever proposal prevail, the differences between purposes are clear. In a industrialized society such as the United States, the attempt is to increase the level of educational excellence--in some proposals at the expense of equity, in others achieving acceptable levels of equality of educational opportunity--that will allow the United States (through increases in labor productivity) to remain a dominant player in international economic exchanges and technological development. The adoption of a proposal such as EFA may distract valuable resources from that end, and therefore may not be endorsed by government administrations considering the adoption of policies such those resulting from the Paideia or Nation at Risk proposals.

I am not proposing here the simplistic view that the EFA proposal will **only** generate better qualified manual labor in the Third world and the U.S. proposals listed above will strive to generate **only** better qualified intellectual labor that will produce technological breakthroughs and improve the productivity of the labor force at large, increasing the degree of competitiveness of the society in the world-economy. The situation is much more complex, and goes well beyond intentions or purposes of individual or institutional actors. My point is that in the context of the dynamics of the world-system, the EFA proposal may, at the end, play a functional role in segmenting, even further, the international and social division of labor between qualified manual and qualified mental labor across and within nations.

In the U.S. debate the dualism of training intellectual (mental) and manual labor is retained. But due to the economic surplus of that society, the emphasis on excellence, training in technology and science, and the creation of a broader scientific elite, predominate. The training of a better qualified manual force (i.e.skilled workers) is subsidiary in the U.S. proposals to the development of a 'high tech" intelligentsia, not its main goal. Those who fail to achieve excellence in the schools will be relegated to the less qualified positions in society. This seems to be the reverse case of the EFA proposal. Those who succeed in undertaking basic education, may, at the end, be locked in the less desirable manual occupations, having few chances, if any, to access to the highest occupations (and knowledge) in their societies.

Moreover, if the EFA proposal comes to fruition and predominates in the Third World, and the proposals for excellence in education predominate in the industrialized societies, then the scenario of better qualified manual labor in the Third World and highly qualified mental labor in the industrialized societies may be a possibility. The question is why reinforce instead of changing such patterns of a social and international division of labor?

Let me conclude with some comments, and eventually some recommendations on diverse parts of the documents I have not yet touched upon.

EDUCATION FOR ALL CLIENTELES

The documents practically produce a tabula rasa in their understanding of the users (or learners) of basic education, including mostly girls and women, the poor, street children and working children, rural, remote and slum populations, refugees and migrant workers, and physically or intellectually impaired (Charter, page 7). All these potential learners, described at a very abstract level, are lumped together with the aim of offering a single prescription: basic education for all. This process of aggregation of such a diverse clientele for the basic education programs will pose unsurmountable problems for research, planning and policy operations worldwide.

The clientele of adult basic education in the industrialized and developing societies may differ quite substantially. Peterson (1982) found that the adult education clientele which are targeted by adult education programs in Europe are: (1) workers - both white collar and blue collar workers, especially training processes of adults seeking employment; (2) older persons - broadly defined to include people from mid-life through relatively advanced age; (3) women entering the labor force - defined as adult women seeking to enter or re-enter the labor force after having been away from education or work; (4) parents - including men and women with children up to age 18 in the home, who want parent education programs; (5) "undereducated" adults - a category which, although understood as a country-specific definition, includes, in general, those who have failed to complete the normal sequence of compulsory education.

Research in Latin America, for instance, shows that the adult education clientele in Latin American societies is composed mainly of peasants and indigenous peoples, urban marginal, self-employed people in lower rank positions, lower-wage urban workers usually located in competitive industries and in service sectors (as opposed to those located in monopoly industries and the different intermediate and upper levels of government bureaucracy), and the lowest levels of the urban middle classes, particularly in those countries with the lowest levels of industrial development. These people are found in very large numbers in the more underdeveloped countries in the region or they live in the most backward areas within a single country; some of them belong to ethnic minorities, are monolingual, and have higher rates of illiteracy especially among women (Torres, 1990).

The comparison of the Latin American adult education clienteles with the European one will show only formal, not substantive similarities. However, in the perspective coined in the EFA proposal, all the above-mentioned categories of learners should achieve the same (type, level of) basic education, which could be difficult to attain given the historical-structural conditions of the societies and their dynamics as well as the limited availability of resources, incentives, and employment possibilities for the learners, particularly in the developing world.

DEVELOPING NATIONAL CAPACITIES: RESEARCH, INFORMATION, AND DATA BANKS

Perhaps one of the best elements in the EFA proposal is the suggestion to conduct more research, expanding the amount of information available across countries, and producing more analysis than can be used for policy planning. This initiative should be supported, and be highlighted as a key component of the new strategy of learning. However, the imperatives of scientific research demand time and resources. Perhaps the EFA proposal should consider supporting research at a global scale as a prerequisite to consider any educational reform on a global scale.

Similarly, a common system of collection of statistics, and the availability of data banks that can be accessed from individual countries through a network of micro-computers could be a worthwhile endeavor that may help the policy-makers in individual countries to compare national systems and programs, and learn from other experiences.

DONOR AGENCIES AND MOBILIZATION OF RESOURCES

The concern that many policy-makers may have regarding the EFA proposal is whether the creation of a consortium of donor agencies with a unifying purpose and priorities will not, in the long run, affect the autonomy of the individual countries to request specific aid in specific areas that may fall outside the priorities set by these agencies or even to set policies in particular domains. Hence, outside help may become outside intervention in local policy design and operation. Also, whether by pooling resources together, the biggest donor among all donor agencies will have a "quality vote" in deciding how the resources will be used in the context of the EFA rationale.

Perhaps the best way to avoid external interference in local decision making and policy operation will be to continue with bilateral and multilateral negotiations between governments, development banks, and donor agencies, instead of creating a supra-national agency of donors. The EFA proposal should remain as an indicative document, as an input in the bilateral and multilateral negotiations of lending, and donor agencies and country recipients.

LEARNING PACKAGES

The WCEFA/Background Document suggests on page 78, item 5.43, that learning packages or modules for basic education should be produced and distributed among those participants in the EFA project. This suggestion may prove exceedingly difficult for the less developed societies. First, many of these societies are not in a position to produce or even to adapt the type of learning packages that they may need. If these packages are produced for the whole EFA-system, this will impose severe constraints on these societies. Developing societies may fall prey to publishers, usually with headquarters in the industrialized societies, that by considering the world a "global village" will be producing these packages from particular (even idiosyncratic) cultural, social, and technological perspectives. This may prove very damaging to the economies of these societies, and particularly, to developing endogenous capacities for publishing.

Second, past experience shows that grants for publishing learning materials usually are tied to particular conditions. To produce a particular type of book or material may be difficult if its orientation does not concur with the predominant orientation (and guidelines) of the donor agencies. In short, this suggestion on learning packages, although valuable in itself, should be qualified in the light of the current re-structuring of the publishing industries in the world system (leading to a more centralized decision-making and concentration of capital) and the poor publishing capacities of the less developed societies.

EFA AND THE EXTERNAL DEBT

There is a cursory treatment at best of the external debt of developing countries in the EFA documents. The external debt is not listed under the World Charter's opening statement of the daunting problems that our world faces (page 1). It is mentioned in the Background Document in a few places (pages 2, 17-19) but it is not given careful consideration in the planning of basic education for development in dependent societies.

The key argument in the EFA documents is that: "The debt service problem is linked to the potential for social investment spending, but only indirectly" (Background Document, 10: 2.20). However, they do not expand on this argument, nor do they link the external debt to the process of growth and development in Third World countries.

In a paper examining the unintended effect of the Latin American debt crisis, Fernando Reimers (1989) argues that as debt levels increase, levels of educational expenditure decrease. There seems to be no apparent impact in the balance of recurrent capital expenditures, but the impact is higher in the 'softer' portions of the recurrent budget since the share of teachers salaries increases as levels of educational expenditure decrease. Longitudinal evidence tends to suggest that as debt increases education diminishes as a priority of government expenditues in most of the countries. For some governments the same is true of total education expenditures, producing the threshold-effect in some countries: before the external debt reaches certain levels, the association between debt and education is positive; beyond those levels, the association flattens out or becomes negative (Reimer, 1989: 1).

Preliminary as they are, these research findings comparing debt levels and educational expenditure may explain the diminishing educational expenditure in Latin America. Thus, the discussion of the implication of the debt seems to be fundamental for educational reform. Would it be wishful thinking to press for a reduction of 1 or 2 points in the interest rates, and re-scheduling of the debt payments with longer terms and better repayment conditions as a way to liberate resources that can be destined to basic education? For Mexico, Argentina and Brazil taken together, a 1% reduction in the interest rate of the external debt may release several billion dollars in savings a year. Investing this surplus in employment, health and education is a distinct possibility that may help finance the EFA projects.

The EFA documents will not attempt to press for sweeping changes in the conditions of the debt, perhaps because many of the donor agencies are related to development banks, and reductions in the rates of interest may affect the rates of return of the banking industry at large in the industrialized societies. But, undoubtedly, a reduction in the external debt of developing societies will contribute more to promote basic education than technocratic planning -- particularly when this does not address the need of structural reforms in the international lending system.

EFA AND PARTICIPATION

In spite of its overtly democratic principles, based on an ethic of solidarity, there are very few places in the documents where participation from the population at large is considered essential for the purposes of planning and developing an education for all. Overall, from the policy perspective of the documents, the diagnosis, recommendations, and planning always rest in the hands of a highly educated technocracy.

CONCLUDING REMARKS

Some themes could be added to the EFA proposal. For instance, adult nonformal education is a fundamental component of basic education, hence, the role, practice, philosophy and goals of popular education approaches as developed in Latin America may help refine some of the assumptions of the WCEFA/ Background Document. In addition, the issue of the external debt of developing countries should be incorporated as a substantial concern in the documents, not a peripheral one. The issue of technological dependency and human resource training in the developing world should be at the top of the agenda for promoting basic education, and its trade-offs with higher education.

In policy circles, a discussion of the implications of the EFA proposal for the international division of labor should be undertaken. Similarly, the process of consultation and widespread participation of governments, nongovernment organizations, donor agencies, learners, and academics should be emphasized. The North-South collaboration that seems to prevail in much of the emphasis of the documents should be supplemented with an emphasis on South-South collaboration, not only at regional levels or among neighboring countries, but also between distant countries in different continents. Given different levels of development but fairly comparable conditions in several developing economies, increasing collaboration, for instance, between African and Latin American governments, officials, academics, and teachers, may in the long run, prove very successful as mutual learning experiences.

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TOWARD A PRO-POOR INFORMATION AGENDA AT THE WORLD BANK

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INTRODUCTION

From "Capital Transferring" to "Idea Transferring"

There are about a billion poor people in the world today, approximately one fifth of the world's population.[1] In poverty's most basic sense -- massive wanting, not enough income relative to needs -- little seems to have changed. If anything, poverty is worse because there are more poor in the world today than ever before.

Yet in at least one important respect -- access to information -- the context of poverty has changed significantly. The proliferation of information and communications hardware, though it certainly reaches the rich first, is also beginning to penetrate the isolation of poverty. Increasingly, literate, media-connected, information-hungry poor people are driving social change from below. As a result, the information revolution is beginning to alter the way poor people relate to each other, to ideas, to the state, to the economy, and to political decision-making.

Nongovernmental organizations, bilateral donors, UN agencies, the World Bank, regional banks, and national development bureaucracies have all been dramatically affected by the information explosion. Most obviously, cheaper and friendlier hardware have improved the efficiency with which services can be delivered to the poor. Improved information technology has revolutionized development management as surely as it has revolutionized international trade or business accounting.

The change, however, is more fundamental than improvements in institutional efficiency. The product of development has changed. At their core, development institutions are shifting from "capital transferring" to "idea transferring" institutions. Less and less are they about money. More and more they are about the the transfer of nonfinancial resources -- i.e., conceptual models, ideology, and information itself. Relative to the financing of non-financial transfers, the financing of things is becoming ever less central to what development is about.

Well-experienced colleagues to whom I have made this argument tend to counter that this so-called "transformation" is nothing new. Development, they argue, has always been about ideas, ideology, and knowledge, not things. Projects, they respond, have always been significant only insofar as they are vehicles for ideas, information, technology, research, management systems, and so forth.

That is true. The shift, however, is a matter of the relative weight of the financial/nonfinancial elements and the pace of continuing change. When the Bretton Woods institutions or private relief organizations were established after World War II, cash transfer was the issue. The post-war European economic recovery and relief efforts were, fundamentally, about money. Later, attenttion shifted to the Third World. But building dams and highways was still about money. Schools and hospitals were about money.

Over time, however, the cash-to-noncash content of development assistance has relatively declined. Today, the tail wags the dog.

This shift from cash to ideas is illustrated by the "new" development institutions created in the United States during the 1980s. Take, for example, the following:

-- The National Endowment for Democracy. Created by the United States Congress in 1983, the National Endowment for Democracy's sole purpose is to promote an idea: US-style electoral democracy linked to free-market economics. Compared to traditional aid institutions, the NED budget is minuscule, about $12 million per year. Instead of agricultural projects or hospitals, NED supports think tanks, newspapers, journals, voter education groups, businessmen's associations, trade unions, civic associations, and advocacy groups. It finances explicitly the ideological agenda that is elsewhere implicit in US economic assistance. In effect, NED is a development institution that has shifted entirely from dollar transferring to idea transferring. Ironically, while dollar-oriented development is widely perceived by the American public to have been a failure over the past 20 years, recent idea-oriented development sponsored by the National Endowment for Democracy is popularly considered to be a huge overseas success.

-- The Reagan-Era Agency for International Development. The US Agency for International Development is a more complex example because, unlike the National Endowment for Democracy, it did not start from scratch in the 1980s. In that AID both promotes its core ideas and finances corresponding economic activity, it is a "mixed" idea/dollar transferrer. AID always did both things. What has changed is the intensity of effort directed toward idea advocacy. If one looks within the institution to the key changes over the past decade, one is struck by the reorientation toward two particular ideas: privatization of state functions and economic liberalization.

Many development activities that appeared nominally "economic" took on the cast of holy ideological warfare when incorporated into the Reagan-era AID. Take, for example, the seemingly straightforward matter of support for informal sector entrepreneurs. To the reflexes of "the old AID," that translates into the establishment of credit funds and the financing of training programs. To the reflexes of the "the new AID," it means policy debate over the role of the state and the legal reform of the mechanisms that regulate economic activity.

AID's essentially non-financial approach in this area has been much influenced by the conception of the informal sector articulated by the Peruvian businessman, Hernando de Soto.[2] AID lionizes de Soto, and has helped to create a worldwide platform, e.g., $400,000 in support when his Institute for Liberty and Democracy (ILD) was a "struggling" three person office, $10 million more recently. Rather than finance credit funds, AID has helped foster ILD sister institutions throughout the world. It sends de Soto lecturing, visiting, conferencing; and it has tirelessly promoted his book, now said to be the bestselling nonfiction work in Latin America. By comparison to AID's energetic advocacy of this particular idea of the informal sector, its financial support for actual microenterprise projects is relatively low key.

-- The Decentralized NGO network. International NGOs came into their own during the 1980s. Taken together, NGOs constitute a vast, decentralized system for delivering development assistance that is conservatively estimated to be in the magnitude of $4.5 billion per year.[3] NGOs, however, do not like to think of themselves as capital transferrers, but as idea transferrers. Almost without exception, they downplay their capacities as service deliverers and emphasize instead their capabilities in innovation, model building, experimentation, and advocacy. Modern NGOs often contrast their origins as relief agencies to their more sophisticated contemporary role as development agencies. The difference between relief and development is precisely in the emphasis on ideas. NGO strengths, they argue, are nonfinancial: learning from the grassroots, channeling local knowledge upward, and creating lateral information linkages. The hard financing of development, despite $4.5 billion, is the least of it.

A Pro-Poor Information Agenda at the World Bank

Given that it is a bank, the World Bank might be assumed to be primarily a capital-transferrer. But as Bank staff members now frequently say, the Bank today has become a "knowledge-based institution." Its main capital, ironically, is nonfinancial.

The shift from capital-transferring to idea-transferring accelerated dramatically in the 1980s when, in effect, a new "Structural Adjustment Bank" was created within the old "Projects Bank." Over the years, the Projects Bank had successively emphasized investments in reconstruction (roughly the 1950s), agricultural modernization and infrastructure (the 1960s), poverty projects (the 1970s), and basic human needs (the late 1970s).[4] With the debt era, however, the Bank came to believe that its comparative advantage lay not in projects, per se, but in economic policy reforms.[5] Emphasis shifted toward persuading governments to change their thinking about public expenditure, export orientation, agricultural prices, debt management, and the like.

To seriously carry out this new role, the Bank found that it required vast amounts of data on country economic performance. It had to confront what one staffmember refers to as the "information poverty" of developing countries -- that is, inconsistent, outdated, unreliable data that is in itself a reflection of underdevelopment.[6] Accordingly, the Bank in the 1980s made major investments worldwide in surveys, economic monitoring, computer systems, informational hardware, and Third World research capability. Virtually every structural adjustment loan carried with it a heavy component of informational upgrading.

This emphasis is reflected by the now common observation that the Bank today is knowledge-based. It implies that the Bank's assets and products are primarily intellectual: a 40 year institutional memory; the world's major enterprise in economic research; the capacity to assist member states in generating knowledge; its own vast economic and social data banks; and the problem-solving ability of the Bank's 3,500 member professional staff, the largest concentration of blue-chip economists in the world. Accordingly, the heart of the Bank now is neither finance nor projects, but conceptual models, economic ideology, and policy advice. Money is hardly irrelevant, of course, but its role is to sweeten the central enterprise of the Bank: idea transfer.

The contemporary World Bank embodies the high technology of the Information Age. The Bank's own state-of-the-art informational capability is hurdling forward, and it is working to extend that capability to borrowing governments. It is greatly interested in the commercial implications of informatics. Yet the Bank has not asked in a systematic way: What does the Information Age mean to the poor? How can a knowledge-based World Bank better connect with the kind of information-sensitivity that is evolving on the ground?

The Bank needs to develop an explicitly pro-poor information agenda. To do so, it should build on the following elements:

i. More support for conventional -- and nonconventional -- approaches to education. Ultimately, the Information Revolution is about education, and more fundamentally, literacy. Where poor people are not literate, they need to be. To the extent that the Bank can be more effective at classroom construction, teacher training, and curriculum development, it should do so. To the extent that it can support nonformal basic education among the poor, so much the better.

From the point of view of informational equity, a difficult decision is whether to invest in technological diffusion and much needed buttressing of higher-level technical capacity that serves the poor -- or to widen the spread of the more prosaic fundamentals of literacy and numeracy. Unfortunately, poor countries today cannot afford not to do both.

ii. Expand the use of new communications technology among the poor. The Bank should actively target communications technology toward the poor, just as it now targets educational or agricultural programs. This means a careful policy aimed at expanding the use of computers, faxes, video, and telecommunications among the poor and their organizations, regardless of sector. In some cases, this can be done through the design of projects and in other cases at the macro level, e.g., support for tariff reductions on imported communications technology or policies to introduce new information tools in the schools.

Not surprisingly, many of the knottiest problems imply different policy choices --especially in regard to the regulation and pricing of national telecommunications industries. What are the equity implications, for example, of privatizing state-owned telecommunications services? Should phone use by the poor be subsidized; and if so, will a privately owned, unregulated telecommunications sector provide those subsidies? If long-distance phone tarrifs are reduced to lower the cost of information transfer for business, will low-income consumers be squeezed?[7]

Generally, the technical elite who understand the complex economics and policy implications of these issues optimistically take for granted that "improved efficiency" of telecommunications sector will ultimately redound to the benefit of the poor. But the tradeoffs and distribution of benefits are far from certain, if not flatly anti-poor.[8] It is precisely the Bank's role to challenge convenient assumptions and assume a pro-poor negotiating and advising position.

iii. Improving the fairness of markets by rectifying informational inequity. As consumers, the poor are disadvantaged as a result of inadequate access to information in private markets.[9] Consumer information (like education) is a public good that can be relegated by the state to serve a welfare function. As social services become increasingly privatized in many countries, the state can assist poor consumers to know their rights, options, and understand the merits of various choices. Poor people need access to information about rental markets, housing construction materials, the effectiveness of pharmaceuticals, contraceptive choices, the quality of schools, and the health risks of smoking. This "empowerment function" of government has been relatively ignored by the Bank. However, virtually all Bank loans could be critically analyzed and explicitly designed to rectify informational inequity.

iv. Designing traditional poverty projects with high informational spillover, especially through NGOs. The ratio of information-to-noninformational content of the Bank's project lending has steadily increased and is increasing. The amount that the Bank invests in information management is now equivalent to its investment in several of its traditional sectors.[10] Yet the informational spillover to the poor is not well understood in projects and not now a criterion in design. For all poverty projects, the Bank needs to ask: what are the information loops to the poor? What are the communications linkages (not just formal organizational arrangements) between projects, NGOs that represent the poor, and the poor as individuals within "information pools"?

v. Encourage participation of the poor in policy discussions, not just projects. The Bank's shift toward structural adjustment and policy-based lending was generally viewed with alarm by anti-poverty activists. But the tool itself is not inherently anti-poor in its [illegible] bias. To the contrary, while the impetus for much policy lending was initially narrow (to unshackle presumed constraints upon growth), the idea has taken on new power and variation as it has migrated from sector to sector within the Bank. In the second generation of policy loans (roughly, 1986-89), the Bank incorporated a wide range of policy reforms that were generally pro-poor -- for example, shifts from university toward primary education, policy emphasis on primary rather than hospital-based curative health care, policy incentives for slum upgrading, and measures to offset the adverse effects of macro adjustment. These initiatives generally emanated from within the Bank -- prompted by external armtwisting in some cases, in others not.

In the coming information era, the poor will be increasingly able to engage in direct and indirect policy dialogue with the Bank.[11] Inevitably, organizations representing the poor will transmit positions on previously sacrosanct policy issues such as land reform, military expenditures, export and industrial policy. The Bank has already made a considerable opening in its dialogue with many NGOs at the international level and at the national level in many countries. Meetings between Bank staff and NGOs are now commonplace. Under extreme external pressure from activist environmental organizations, the Bank, as of September 1990, will be required to hold in-country "scoping" sessions (i.e., public hearings) on all projects with a possible environmental impact (about 25% of the lending portfolio). The Bank should welcome this trend toward public engagement with and accountability to its beneficiaries.

vi. Informational Glasnost within the Bank. Although the Bank may be a knowledge-based institution, its information system is remarkably closed to the outside -- nominally on the grounds that the Bank must protect the confidentiality of its discussions with borrowers. There are, for example, no procedures for the declassification of documents that have sat on the shelf for 25 or 30 years. Bank staff members themselves complain that they cannot get documents from each other. A researcher normally must "know someone" to acquire even the most mundane reports. Information that should filter down is instinctively hoarded and guarded, precisely because information is power.

On the other hand, the new informational technology is naturally "leaky" and pressures for openness are intensifying. As a result, the Bank is beginning to extend access to its knowledge base -- for example, publication for the first time of accurate World Debt Tables; 3-4 page briefs on country economic performance, and improved access to its statistical bank on socio-economic data. But the bolder step -- an explicit policy of informational glasnost -- has yet to be taken. That would be the first step toward a genuine pro-poor information agenda at the World Bank.

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ENDNOTES

1. The World Bank estimates the number of poor people in developing countries to be about 1050 million, or about 30 percent of their population. Of these, 620 million (18 percent) are considered to be extremely poor, i.e., they cannot afford a annual consumption bundle costing $275 per person. World Bank, World Development Report 1990 , Chapter 2.

2. De Soto's notions are advocated most forcefully in his book, The Other Path: The Invisible Revolution in the Third World, Harper & Row, New York, 1989. For a discussion of the ideology and political implications of the book,, see Sheldon Annis and Jeffrey Franks, "The Idea, Ideology, and Economics of the Informal Sector: The Case of Peru," Grassroots Development, Vol. 13, No. 1, 1989

3.Joseph Wheeler, Development Assistance Committee Annual Report. DAC, Geneva, 1990.

4. By setting dates I do not wish to imply that the Bank did not finance other activities at the same time or these activities during other eras, but rather, that these were the principal emphases of the Bank's lending (not just the Bank's rhetoric) during these years.

5. For discussion of the relative shift in emphasis from project lending to program lending, see Sheldon Annis, "The Shifting Grounds of Poverty Lending at the World Bank," in Richard Feinberg, ed., Between Two Worlds: The World Bank's Next Decade, (Washington: Overseas Development Council and Transaction Books, 1987).

6. Nagy Hanna, "The Information Technology Revolution and Economic Development," World Bank Working Paper, Task Force on Information Technology for Development, January, 1990. To illustrate this point, Hanna points to Mexico. Even though Mexico has a huge economy and a sophisticated public sector, its basic data on export performance -- which is absolutely crucial to major policy decisions on the future direction of the country -- are at least two years out of date. In informationally impoverished countries, Hanna points out, critically important numbers are simply made up or manufactured by

development consultants who tend to borrow and creatively adapt numbers from one source to another.

7.For a discussion of these issues, see Elizabeth Fox, "The Changing World Environment of Culture, Communications, and Information," World Bank Strategic Planning Department, June 1989.

8.See Jill Hills, "The Telecommunications Rich and Poor," Third World Quarterly, vol. 12, no. 2, April 1990.

9. This theme is creatively explored in several works by a Bank social sector economist, Nancy Birdsall. See, for example, "Pragmatism, Robin Hood, and Other Themes: Good Government and Social Well-Being in Developing Countries," Draft manuscript for the Rockefeller Foundation, May 1989, pp. 22.-33.

10. Nagy Hanna and colleagues are developing a more precise calcuation of the Bank's investments in information, communications, and information management. Report forthcoming from the World Bank Task Force on Information Technology for Development.

11. An example of engagement between the Bank and a decentralized social movement is given in Sheldon Annis, "What is Not the Same About the Urban Poor," in Strengthening the Poor: What Have We Learned? (Washington: Overseas Development Council and Transaction Books, 1989).

LEARNING AND INTERVENTION: THE INFORMAL TRANSMISSION OF THE KNOWLEDGE AND SKILLS OF DEVELOPMENT

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INTRODUCTION

To contend that the poor are the bottom line of development may be trite; it is also uncomfortably true. Uncomfortable, because ultimately the only viable solution to the human reality of poverty is a level and quality of sustained, collaborative and equitable interaction with those who are poor which is difficult and complicated to achieve. And uncomfortable, too, because such a solution implies a fundamental diminution of power and resources on the part of those of us who have them in favour of those others who do not.

But the statement is true because in the final analysis it is the poor mother who must cope with the sorrow of a dying child, the migrant farmer who must move, and the illiterate or untrained adolescent who must face a future with little hope. It is the individual, alone and in the collectivity of family and community, who eventually must decide to adopt more nutritious food preparation and eating habits; to become literate; to use water in a healthier way; or to follow more educative child-rearing practices. And it is the individual, influenced by family and community, who will decide not to.

Thus, it is individuals, within the context of a particular socio-cultural, economic and physical setting, who must bear the burden of enduring poverty and it is these same individuals who, within the context of their own priorities, must decide to act upon that situation to change it. And it is the individual, alone and in the community, whom development intervention programmes must eventually reach if they are to produce sustainable benefit.

This is obviously an over-simplification of a very complex phenomenon. The kind of poverty now endemic to developing countries is too multifaceted in its dimensions and implications to be in any real way a condition of individual choice or individual remediation. Nor is it a condition ascribable to the small group of "stragglers at the bottom of the heap who might, with some imagination, be considered misfits" (Roling -b-/5). Rather, as Roling and others point out, poverty is becoming a condition of the majority, a permanent feature of the social structure and dramatically and frighteningly worse. While it is not intended here to suggest that purposive malfeasance has brought this situation about, it is clearly the case that the idealistic rhetoric of development has outpaced its implementation to an unacceptable degree; that the causes and solutions of poverty have for too long gone unrecognized, ignored and denied.

For most of the Third World poor, the chance of their realizing the kind of human and economic resource base necessary for self-sustained improvement in their quality of life is not presently possible, nor is it in the foreseeable future probable. Despite significant advances in the knowledge and practice of most issues of concern to development, the same communities that have been poor, unhealthy and marginal are continuing to be so and are continuing to lose ground. Economically, they are no more viable. Socio-politically, they are no stronger as participants in the decision-making forums which directly affect them. As workers and farmers they are no better able to adapt to shifting technologies, market demands or agricultural dislocations. As providers of the health care, childrearing and nutritional needs of their families, they are becoming less effective and less confident in the face of rising costs, the commercialization of food and medical care, and intervention programmes which undermine their security in traditional beliefs and practice. With barely functional literacy and numeracy skills, it is proving progressively more difficult for them to maintain economic viability and social access.

As a result, much of the development ideal is today facing a crisis of time and confidence, the rich increasingly reluctant to provide and the poor increasingly reluctant to co-operate. Alienated from the process of development, many of the poor are coming to doubt whether its agents, local or foreign, are in fact capable of producing genuine change, or if actually they are sincerely committed to doing so.

The costs of this crisis are high for all concerned, in terms both of the direct expenditures of human and financial resources and of the more indirect (but in the longer term perhaps more significant) consequences of disappointed expectations, lost good-will and a growing disinclination to engage in future such efforts. Within this context, the sense of urgency motivating the World Conference on Education for All is very well placed, as is the fact of its being framed within an explicitly collaborative social and economic perspective. It is essential that these two perspectives on development, having tended in the past to operate independently of each other, begin in earnest to construct -- and to act upon -- a more integrative reframing of the goals and processes of development.

It is of particular significance that this is happening within the context of basic education and learning as these pertain to issues of sustainable development, participation and empowerment. As affirmed in the WCEFA Background Document, learning (defined as the acquisition of basic knowledge and skills) is a fundamental human right and support for it an equally fundamental social responsibility. It is the purpose of this paper to present the idea that learning is in fact much more than simply a right and responsibility in the context of development, but that it is a fundamental pre-requisite of any development which seeks to be coherent, equitable and sustainable within the reality of the poor; that defined in its broadest sense, it is critical as both catalyst and medium for change at all levels; and that it is the core element underlying those concepts of participation, empowerment and sustainability currently so popular in development circles but still rarely defined and even more rarely applied.

Unfortunately, while the integration of learning with the development process is essential, it is by no means automatic. On the contrary, it seems seriously to be missing from the majority of development activities as currently applied in the Third World.

To amend this situation will require a radical shift in not just the rhetoric but also the application of the paradigm through which the messages and resources of development are conceptualized and delivered. The deficit model, in which the somehow inadequately developed victims of poverty are to be compensated (at least to a certain degree) for the missing social, physical and economic qualities of their lives, is no longer tenable. It is not that the situation of deficit is itself untrue; the poor do suffer deficit from having been denied an equitable share of resources, and these inequities must be redressed. But the deficit model per se is dysfunctional in as much as it tends to lead to responses on the part of development agencies that are overly intrusive, often demeaning and disruptive, and too regularly ineffective.

Just as the concept of illiteracy as a disease to be simply eradicated seems happily to have become outdated (WB,MBLN/53), so too must those development intervention programmes which are based on an image of the poor as undifferentiated; passive and yet obstreperous; and people who, lacking both history and ambition, need external motivation in order to accept obviously useful changes in their ideas and behaviours. They are also people, however, who are expected in the final analysis to be content to remain and make-do within a situation of economic subsistence, political powerlessness and physical vulnerability which interventions do not essentially change.

While it may no longer be considered wholly appropriate to espouse a deficit model, however, the negative implications of it continue to have effect in practice through the ways in which intervention activities are conceptualized, designed and implemented; by the goals they seek, both stated and implicit; by the theories of learning and change which inform them; by the nature of their interaction with target communities and other development agencies; and by their own internal organizational behaviour. It is with the problem of ineffective development activity on the part of intervention programmes, particularly with respect to the promotion of learning, that this paper is concerned.

LEARNING

Learning in the context of this paper has a meaning beyond simply education or training. It refers to the innately human capacity to interact with one's social and physical environment in such a way as to derive logical meaning, guiding principles and consistent perspective. It is a process which results in relatively stable changes in previous behaviours, attitudes or values, or the establishment of new ones -- changes beyond what could be attributed to normal maturation. Learning involves the acquisition of information and of intellectual and mechanical skills as well as the expression of new attitudes. But these are neither the whole of the process, nor its most critical elements, when considered in the context of development.

Much more central in the learning process is the increasing ability to predict consequences, weigh alternatives, perceive comparative advantage and distinguish salient characteristics of a situation. It involves the individual's enhanced awareness of self and community as active agents with both the capacity and the right to influence life conditions; that they are not simply pawns in the hands of either fate or the outside expert. It includes developing capacities of analysis, synthesis and evaluative judgement; abilities which in turn enable one to search out, exchange and interpret information, and from there to solve problems and make decisions.

Education and training are aspects of learning, evolved from the perspective of those seeking to facilitate it. Whereas learning is essentially personal, education is basically social and functional, "...created to enable groups of individuals to learn effectively, efficiently and for the benefit of society, ...(and involving) the selection of knowledge, values and skills to be learned and the manipulation of conditions...to maximize the likelihood that learning will occur" (Blunt/38). In the end, of course, what and how an individual actually learns within an educational setting, either in-school or out-of-school, are critical questions involving a number of factors, some of which will be considered through the paper. Suffice it to say that education at its best is intended to provide organized opportunities for exploring new knowledge and practice; for strengthening intellectual capacities; and for establishing "standards of judgment" as guides in determining one's own meaning of the world (van den Bor/336).

Training is a much more restrictive term, referring chiefly to the transmission of discrete and largely rote and/or mechanical information and skills. It tends to be relatively short-term and work- or task-specific. Unlike education, training tends not to include the potential of a significantly interactive learning process and is almost always top-down and externally controlled.

Learning involves not only the acquisition of capacities such as those described above, but also continuing to apply these processes with increasing flexibility and range. As such, it involves an ability and commitment to "learn how to learn", and the conviction that reconsiderations of, and renegotiation with, one's environment are both possible and important. It is in this sense that learning lies at the heart of concepts such as empowerment and participation. A person who is willing and able to interact openly, systematically and collaboratively with his or her setting, and at his or her own initiative, will be in a realistic position to evaluate that setting, seek improvements where needed and engage constructively with innovations and ideas introduced from the outside to promote such improvements. Empowerment doas not come from information alone, nor participation from "turning up". Both come instead through critically reflective learning.

Participation, Empowerment and Change

As will be suggested throughout this paper, it is learning that enables people and societies to adapt to and act on changing circumstances and new knowledge. It enables the individual to know not simply that other ideas, attitudes and behaviours exist and may be useful, but why they might be so and how they might be applied in the context of his or her own reality. Participation in community-based health care programmes works, for example, not because people learn new facts per se. Rather it is because long-term, in-field learning experiences have enabled health workers and community members to use the information to "demystify the medical model", to clarify for themselves the relationship between health, disease and life-style and to identify and act on critical points of entry for change (Social Sciences and Medicine, Vol.8 '89).

Family planning programmes are similarly effective not simply when technically sound devices for controlling pregnancy are made accessible. Birth rates will decline when women (and their communities) have come to recognize themselves as equal members of their society, have learned that there are alternatives to their achieving status and legitimacy other than motherhood and have developed the cognitive and technical skills and the self-confidence necessary to pursue those alternatives.

Water and sanitation systems get used and maintained not because the technical design is so compellingly good. Latrines and water tanks will become more than simply community art forms when the community is provided sufficient, and sufficiently interactive, opportunity to learn issues of hygiene as they relate to health; methods for designing and maintaining monitoring systems; skills in collecting and allocating resources for repairs; and, overall, the conviction that the system is theirs to be used for their own good as they see it (Roling/a).

Learning works in these cases because it both enables genuine participation and requires it. In so doing, it promotes empowerment as people realize they can produce and direct change, and a sense of ownership because is establishes their right to do so. Through all of these, it engenders sustainable change because the satisfaction of achievement and control are self-motivating.

Learning, then, is at the heart of the currently more popular buzz words of development these days: participation, empowerment, ownership and sustainability. Like learning, these are terms beguilingly simple. But it is a simplicity bordering on the panacean which belies a much deeper complexity of intention, behaviour and expectation. Unfortunately, as with learning, it is most frequently the simple definitions which prevail in the design and implemenation of interventions -- with the result that the real potential of the ideas is not realized.

Thus, as learning tends to be operationaled simply as recalled information, regurgitated attitudes or technical skill mastery, participation is reduced to "being there", empowerment to animated group discussion, and ownership to communities providing their own labor, "...getting peasants and slum dwellers to build their own roads and schools;..things they would never dream of demanding from the rich" (Durning/169). While these more superficial manifestations are certainly necessary components of their respective concepts, they are not sufficient to realize them. Durning and others make the point that interventions fail because "the critical element,..control over the goals and processes of development" has been consistently denied to those communities expected to engage in that process (/169).

Control, however, does not simply appear full-blown. It is achieved through genuine participation, which in turn implies learning. For participation, too, is a complex phemomenon involving "the ability to engage in effective, mutually beneficial social problem-solving....(to) recognize, understand and appropriately respond to social demands". And it implies both confidence in oneself as well as a commitment to include others in the process (Darkenwald and Valentine/4).

Within this framework, people participate to the extent that they choose, cognitively, affectively and physically, to engage in establishing, implementing and evaluating both the overall direction of a programme and its operational details. Choice, in this context, implies not merely an agreement to follow but an active decision to assume responsibility in considering the rationale, implications and potential outcomes of the programme. It includes taking into account indigenous conceptual, ethical and cultural criteria, and the assumption that renegotiation of, or withdrawal from, that choice is possible. Skills of participation would therefore include being able to analyze and synthesize; to collect, manage, exchange and assess information; to interact constructively with others; and to assume and delegate responsibilty.

As suggested above, empowerment and ownership are concepts intimately linked with participation, but with specific reference to the idea of increased control: that poor communtities come more explicitly to assert rights and responsibilities in determining the direction of their own development. Realizing these goals in conjunction with an intervention, for example, might involve being able to collaborate on the definition of a situation as problematic; being able to exercise discretionary control over decisions made in analyzing that problem and formulating solutions; and having the skills and attitudes appropriate to the management and application of those solutions. It would also involve the capacity and willingness to determine to end an intervention no longer judged to be useful. From the perspective of the intervenor, it implies a readiness both to give up proprietary control and to provide the necessary material resources as well as learning opportunities for the equitable sharing of this control.

Empowerment implies participation and ownership. Like them, it includes the notion of learning since people will assume rights and responsibilities for development activities as and when they learn that these work, through being exposed to new ideas and examples of their application and through their own application and testing of them. Participation and empowerment imply the capacity and the opportunity for people to generate for themselves the knowledge and strategies which produced the intervention programme in the first place. Interventions in this sense, therefore, need to provide the opportunity for communities to re-invent the wheel -- and perhaps even to reconceptualize and redesign it. In so doing, a good intervention will include quite explicitly within it the plans for its own obscolescence by making provision for the transfer of responsibility to the client community of not only its programme content but also of its basic conceptualization.

Closely allied to the concepts of participation and empowerment, as both cause and effect, is that of sustainability. Originally applied to agriculture, sustainable development in general terms denotes the idea of cyclic renewal and resource equilibrium within an intact ecological system. In other words, sustainable agricultural practice is one which does not depend for continuity on external resources (though such support may be involved), and one which will not destroy its resource base in its application. "People" have entered into the discussion of sustainable development somewhat recently in its evolution. Most specifically, the critical role of farmers and farm families as ultimately responsible for operationalizing the concept in the field, or of deciding not to, is becoming more clearly recognized. In a more general sense, it is becoming increasingly clear that socio-economic development activities also need to be sustainable within the parameters of the particular socio-cultural ecology in which they are expected to be applied if they are actually to result in enduring change.

Sustainability is too, therefore, a complex concept involving a number of components none of which is sufficient in itself and all of which must act in concert to produce the whole. Roling (b) presents the case of agricultural development as needing a certain "development mix" of critical elements (physical, social, economic etc), most of which will be common across all agricultural settings but the relationship and priorities among which will vary across time and circumstance -- and which require continuing adjustment in any one situation as conditions change. Identifying, negotiating and maintaining the correct mix seems a central tenet of sustainability since continuity can only exist in situations of monitored change.

The idea of a critical mix seems a reasonable one for most development issues, and it is one that must obviously incorporate learning in its broadest sense. The capacity to engage in critically reflective analysis of an agricultural or health problem is a matter of learning and it is a pre-requisite to maintaining a stable system i.e. sustainability. At the same time, many of the conditions resulting from a sustainable, stable system (a relatively predictable, relatively non-risk environment, adequate time and psychological energy for regular evaluative and projective thinking, sufficient resources to apply to the solutions of problem-solving activities) are also the conditions which will serve to promote further learning. The process of development must be an inherently synergistic one and learning provides the motor to that process.

INTERVENTION PROGRAMMES

Intervention programmes seem to hold the key to any development which is to have a human face and to be organically enduring. As the principal administrative structures through which governments, NGO's and international aid agencies deliver their socio-economic, health, agricultural and technical messages and resources to the poor, they are probably the single most important vehicles for promoting immediate development at the community level. Massive economic or environmental restructuring projects will clearly have more dramatic impact. But these do not constitute development in the sense of creating change in life quality at the individual level or in such a way that individuals, alone and collectively, can understand and play a meaningful role in the direction and application of that development. While formal schooling is, and will likely remain, the largest single medium for basic skills instruction and general knowledge dissemination, it will also remain restricted to particular age groups and to curricula which separate content and methods from the immediacies of life and work.

Intervention programmes constitute the most frequently used, widely topical and specifically targetted mechanisms for reaching poor and marginalized populations with the information, access to skills and the resources necessary to their immediate development. Free from the restrictions of the formal school, interventions have the potential for flexibility, spontaneity and responsiveness that should enable them to begin from and build on the aspirations, needs and priorities expressed by their clients. Concerned with such critical issues as health, family planning, nutrition, water management and work, they have the potential for including the kind of content coverage sufficiently comprehensive and relevant to engender genuine participation. As such, intervention programmes have the potential to become the most powerful, enduring and significant "opportunities of learning" --and thus of sustainable development -- in the development context.

That intervention programmes are not realizing this potential has much to do with how they define their role and the nature of their relationship with the developing community. That they are also very possibly serving as a source of learning that undermines genuine development has much to do with their failure to realize the subtle but significant influence they can exercise on that community, often unintentionally.

Definition

Interventions, as a form of development activity, constitute a relatively "systematic effort strategically to apply resources to bring about change (Roling in Kater/6). Because they are systematic, they are "knowable" in the sense of having identifiable and predictable structures, functions, roles and expectations. They are not black boxes of ad-hoc, non-directed activity; few are particularly unique. While not exactly homogeneous given the differences in content and institutuional parameters in which they operate, interventions do share to a significant extent a similar "development bureaucracy" (Kater). Whether national or international, government or donor, the knowledge bases, systems of knowledge transfer, management procedures and resource control structures of interventions as a whole reflect the western (i.e. scientific or modern) system of norms and principles from which the idea initially sprang and toward which most have tended to conform, for obvious political and financial reasons.

As defined here, intervention programmes are those which literally intervene in a community or target group. Originating from outside the immediate control of this group, and delivered through government, NGO, university or donor agencies, interventions most typically take the form of "projects." These are time-bound (on average 3-5 years) and bring along with them the professional expertise and financial resources necessary to sustain activity for that period, and within the framework of goals and methods similarly set from outside. In terms of focus, they cover the spectrum of development problems, but any one project will tend to be confined within a particular sector and even to a specific disciplinary perspective within that sector. Such programmes are "non-formal" insofar as they occur outside the school system; they would not necessarily be defined as "education" however, insofar as they tend not to include well-defined curricula, explicit teaching strategies or structured instructional settings.

Potential versus Reality of Intervention

Whether or not they explicitly aim at such, intervention programmes do nevertheless constitute important learning events, both planned and unplanned. Convincing families to use ORT, to control their size or to eat more nutritionally; convincing communities to build and use healthier sanitation and water systems; convincing individuals to become literate and to seek information through which to apply such skills, all of these most certainly imply learning. This is especially so since it is assumed these behaviours will be maintained across time and varying circumstance and that they will be elaborated and transferred horizontally, across the community, and vertically, across the generations.

As suggested earlier, in their potential at least, interventions are currently the best means for reaching the rural poor with development messages, where and as they are and on their own terms. Intervention, by definition, serves to break fixed mind-sets and so to open the possibility of change. It is a basic tenet of learning theory that the most significant learning occurs in the face of negation: of expectations not realized; assumptions not confirmed; actions met with unanticipated feedback; previous truisms confronted with new data. It is in coming to terms with opposition that genuine analysis and negotiation will be undertaken, and from there either changes to past behaviour, or better-founded reconfirmation of that behaviour, made.

By introducing new information which throws into question traditional practice; by giving examples of, or access to, alternative strategies or solutions; or by guiding the process of trying to recast old concepts, planned intervention can very effectively serve to stimulate learning. By ensuring that the methods used to introduce and facilitate this process are consistent with the dignity, learning capacities and styles, and life experiences and context of the community, there is no intrinsic reason why an intervention should not produce positive effect.

From a capacity-building perspective, timely and relevant interventions are often the critical factor in preventing serious degeneration of a system at risk by helping to strengthen its adaptive or coping behaviour. A usefully provocative area of research in this regard is the work being done with children suffering from central nervous system (CNS) disorders. While obviously not precisely analogous, the idea of a human system disadvantaged or at risk due to a deficit in the range of internal capacities available to it does have relevance to the situation of the chronically poor in much of the developing world -- people deprived of the full range of physical and/or human resources necessary for their socio-economic development. The critical significance of this condition is that the system, individual or community, is not able to interact with full capacity on its social or physical environment; finds it therefore more difficult to learn and to use learning strategies to gain access to further resources and skills; and eventually falls permanently short of its development potential.

What is nice about this analogy is the support it provides for the idea of intervention as a legitimate learning event. At the core of the work is the concept of "system plasticity", the inherent "capacity of a developing organism to find pathways around a deficit" (Brazelton/1):

> ...in the face of enormous onslaughts from the environment, we can see evidence of affective and cognitive responses....This very capacity to reach out for, to resond to, and to organize toward a response to social and environmental cues seems so powerful (6).

Such capacity seems also to be self-sustaining, the success the child experiences in achieving a state of homeostasis with the environment serving to encourage further reaching out, testing and growth. The role of intervention in this process is to provide the child additional resources as contribution to, not as substitution for, its own. By doing this in a way that builds on the child's initiative and strength, a well-framed intervention can help not only to prevent total system failure but indeed to achieve a higher level of growth, more quickly, than would otherwise have been possible. Similarly, development intervention programmes can co-operate with at-risk groups or communities to reinforce indigenous capacities and initiatives through the responsive provision of resources for learning, and in such a way as to reconfirm their naturally self-motivating characteristics.

Finally, interventions can provide a useful and sometimes critical correction to ineffective or harmful indigenous beliefs and practice. That a social pattern is traditional does not necessarily ensure that it is right. Practices of child-rearing or rice production which may have served a community well within a prior set of conditions may no longer do so as conditions change -- particularly where those changes have been so rapid as to have rendered ineffective the normal processes of social adjustment or where they involve so broad a spectrum of factors outside the community's direct purview that informed reconsideration of behaviour is not viable. And research does produce new and valid information about the effect of certain foods on growth or of sensory stimulation on intellectual development. It is precisely in these kinds of circumstance tha purposive, sustained interventions can have value.

Unfortunately, there is risk in trusting implicitly to the power of interventions to realize their potential. Structurally and philosophically, in their methods and in their goals, intervention programmes are falling far short of what they have intended, and should reasonably have been expected, to achieve. Instead of serving as agents of development, they are becoming increasingly criticized by recipients for being "always in a hurry to get in and out"; easily frustrated by any but the most objectively concrete, readily reportable, results; and almost never willing to commit themselves on a long-term basis to helping re-establish equilibrium in communities where traditional systems might have been unsettlingly undermined by the intervention experience. Short attention spans, narrow sectoral perspectives on the nature of problems and their solutions, an "add-on" rather than an "integrated with" philosophy as to how change occurs in life settings are all characteristics frequently applied across the intervention spectrum. To the extent that such characterizations are accurate, the result seems less likely to be intervention activities which are catalytic in promoting development and more likely to be interventions which serve as deterrents to such development. With limited time or attention for the creation of sustained, iterative feedback, intervention agents often fail to learn where their programmes might be going wrong or, if told, fail to understand the logic of what they are hearing because they have not made it their purpose to learn the realities of the community.

As with any institutional structure, intervention programmes are organized in terms of their own definition of need. Sometimes this is based on a thorough and sensitive analysis of the local recipient setting, but more often than not it is the parameters of the intervention's own raison d'etre and concern for continuity which set the tone. Too few intervention programmes are directed sufficiently toward their own obsolescence through specific provision for the devolution of management and content decisions to those expected to continue the enterprise. Programme designs do not tend to incorporate explicit or coherent learning activities aimed at strengthening the capacity of the local implementers to "own" the programme: to understand and adjust its purposes, manage its operations and assess its viability. Interventions, where they consider the issue at all, seem instead to assume that a sense of ownership will be acquired simply through participation (again, typically defined as turning up), without ensuring that people are provided the opportunity to develop the requisite capabilities by actually making decisions in a relevant position and reflecting systematically on the experience. In other words, to learn how to do it.

Though intervention programmes, unlike those of schooling, are not required to be congruent within a wider education system, the institutions from which they emanate do have criteria of internal efficiency and professional credibility to be met. This makes it more likely for them to produce projects sensitive to the demands of the particular discipline (health, agriculture etc) or to the technologies of the proposed solution than to the cultural characteristics or priorities of the recipient community. It is an arms-length relationship of the project to the field that makes flexible responsiveness difficult. And it suggests an attitude about the status of the intervention vis-a-vis the community which might well engender a similarly distant relationship on that other side -- a relationship often operationalized in programme evaluations as problems of non-participation, drop-out and lack of commitment.

An inherent dilemma for intervention programmes is that most are in essence closed systems working in a field and for a purpose which require an open one, "...one which not only allows change to occur as a result of content or pedagogical advances (or, one might add, feedback from the client), but which actually provides for and mandates such entry and change" (Griffin and Light/42). Instead, interventions can often serve simply as the vehicles for importing models made elsewhere, and doing so without much concern for the over-arching characteristics and natural inter-connectedness of the receiving system. By introducing change on the basis of designs created within or for other contexts, and leaving little room for genuine renegotiation or reconceptualization at the point of entry into the community, these programmes run the serious risk of altering indiscriminately many of the elements of a probably quite viable local system. In this situation, the intervention becomes something tantamount to a game of pick-up sticks wherein the entire structure of the community may be fatally harmed, its innate capacity and potential as an adaptive, organic system undermined by moving the wrong pieces the wrong way at the wrong time. It is not surprising that co-operation may not be forthcoming from a community which recognizes the risk involved.

The tendency for interventions to be closed is reinforced by the use of the project format. Precipitated in part by the constraints of fiscal cycles, person years and programmes of work and budget, the project format makes organizational sense: tidy, confined, funded up-front, clear as to inputs, outputs and procedures and inherently predictable. Regrettably, the life of the poor is not quite so neat; to reduce its complexity, complications and unpredictability to fit the format is to reduce it to irrelevance or to failure. Fragile and/or loosely structured community organizations, for example, have trouble using major inflows of funding at the outset of a programme; they need time, practice and room to manoeuvre if they are to select priorities, manage accounts and balance resources effectively. Supply-led intervention projects, according to Durning, are "worse than not supporting (such groups) at all. Over-funding can subvert local control, distort community priorities, promote capital-intensive technologies over effective local ones and fuel jealousy between organizations that should be allies" (Durning/170).

As suggested earlier, development and the programmes intended to promote it need to be set within a different paradigm if they are to succeed in realizing meaningful change. How such a paradigm might eventually look is still open, but insightful ideas can be drawn. MacDonald et al, for example, present a usefully analogous argument as to the inappropriateness of applying wrong models of intervention in health care, in this case using the traditional medical model in the design of HIV prevention education programmes. It is an argument equally relevant for development interventions since most of them, too, aim not so much at "curing" (e.g. diseases, harmful farming practices), as at "promoting" (e.g. healthier life styles, ecologically sustainable agriculture)¦

> There are many reasons why the medical model does not apply to health education in general and to HIV prevention programmes in particular. The medical model relies heavily on controlled circumstances; for example, testing a new drug or a cell line in the laboratory...or giving some patients a pill and some a placebo and observing the results. Yet this approach is difficult to apply in educational interventions; education does not occur in a vaccuum and cannot be conducted in vitro. Modifying behavior is never an absolute endeavour; every action influences every other action (MacDonald et al/14)

In many cases, the very vocabulary of an intervention's stated objectives reflects a paradigm in direct opposition to the aim of encouraging local responsibility. Programmes intending to "stimulate adoption", to "propogate a best solution" or to "make the innovation acceptable" are unlikely to give the message of local ownership and flexibilty. In other cases, the problem is not so much with inappropriate, stated, goals as it is with those intended but hidden agendas which contradict good ones. Community conscientization programmes which have as their real purpose the inculcation of quite specific and compliant citizenship behaviour are a case in point. In either case, the result is not likely to be one of empowering development since, in both cases, communities are usually well able to read the negative bottom-line.

Another, often more intractable, problem for interventions is that of incongruence between stated goals and the means used to attain them -- reflected in the design of the programme, the philosophical or behavioural characteristics of facilitators, th scope and amount of resources provided. An example of the problem comes from Bock and Papagiannis, and their suggestion that the assumption of a benign if not actually positive relationship between nonformal education and development may not in fact hold. Rather than being the medium for liberating the poor, NFE may be instead "an even more effective means (than schooling) for limiting cross-segment mobility" (p 10-11), locking workers, rural mothers and subsistence farmers into politically and economically marginal strata. If so, and since no intervention would likely claim such a purpose, the cause might well lie either in the means used to implement the project or in the perhaps unstated but implicit theories underlying thos means.

Bock and Papagiannis suggest that, because there are usuall no certificates provided through such programmes, they will tend to maintain their "graduates" outside the upwardly mobile labour market stream. In a similar vein, programmes that stress improvements in, rather than a fundamental restructuring of, subsistence farming; that essentially help communities only at the level of supporting them to build their own roads and make d with neighbours as health workers; or that focus their entrepreneurial capacity-building activities on such economicall marginal ventures as chicken raising and crafts production may well ask whether they are serving simply to "cool out" any legitimate (albeit likely unrealizable) expectations inspired through schooling. To what extent do participants learn through the projct to doubt their ability or their right to act on the system, acquiring instead attitudes and expectations directly contrary to the type of risk-taking, assertive and analytical behaviours which constitute empowerment?

The tragedy is that empowerment of the poor is something interventions lose rather than fail to gain. An intervention fails not because it does not create new capacities and motivations but because it inhibits the effective expression of the potential for empowerment that the poor already possess. Th human resource base through which an intervention can ensure its success is there; as with any learning event, it is a matter of the programme's recognizing this base and building effectively from it. The next section of the paper will make the point that the poor are not a vast sea of lost or incompetent souls in search of rescue, but rather quite capable, motivated and resourceful individuals and communities looking toward more equitable, dignified partnerships.

RECIPIENTS OF INTERVENTION

Sympathy is certainly due the Third World poor. On the one hand, they must endure the continuing cycle of endemic socio-economic marginality, physical subsistence and risk created for them by an inequitable distribution of resources and power. And they must do so while at the mercy of an ever-burgeoning multitude of usually well-meaning but often ineffective, energy-consuming and at times seriously intrusive development projects. Aimed at filling their "deficits", motivating their commitment and engaging their participation, in too many cases these programmes compete or conflict among themselves and with community systems.

In too few cases do such programmes complement one another or adequately recognize current strengths and future potentials of developing communties. To use the analogy of the school, they tend to take as their basic point of departure the content requirements of the curriculum (the technology or skills innovation) and the methodological preferences of the teacher (the professional competencies of the delivery/field staff), leaving the learners, an essentially unknown quantity, to adjust, conform and "develop" as best they can. It is an approach that is, from the perspective of learning theory, ineffective; from marketing theory, inefficient; and from the perspective of a concern for equitable, empowering development, untenable.

Geographic and cultural distance from the field, coupled with none but sporadic monitoring, have produced a situation in which very few intervention agencies adequately know the salient characteristics of their target communities. The deficit model has inclined many programmes toward a rather negative view of the intrinsic capacities of the poor, a view that tends to be reinforced by the often passive compliance or resistance behaviours evidenced by recipients. Even where the stated goals of intervention might espouse a collaborative mode (presumably based on the participation of suitably capable target partners), the highly prescriptive, tightly managed and/or narrowly focussed nature of many programme designs and methods suggest a much less charitable assessment.

Evidence from development literature and anthropology, from practitioners in the field and from personal observation is unambiguous in confirming the status of the marginal poor as, on the whole, constituting intact, functional and adaptive communities. They are not people at the dawn of their history (Durning/159), but are on the contrary people who have managed --in the face of considerable and long-term adversity and dramati socio-cultural upheaval -- to look after themselves and even perhaps to find satisfaction and to be relatively happy. They have developed systems of food production, physical reproduction and social maintenance that have, to a reasonable extent, worked They have preserved not simply the physical existence of their communities but also the integrity of their socio-cultural organization. Much of this strength expresses itself through th natural inclination and ability of individuals, and of the group as a whole, to learn. It is realized too through the fact that such indigenous learning can be sufficiently systematized to allow for the reproduction and adaptation of a basic system of social, cultural and economic beliefs, attitudes and practice that constitutes a coherent whole.

Indigenous Learning Systems

The concept of this kind of indigenous learning system (ILS is an important one in terms of the broader issues of sustainabl development insofar as it supports the idea that people do naturally learn, not simply as individuals on their own but collectively as intact social groups (families, communities, sub cultures). Evidence suggests that a learning system at the leve of the group is not only reasonably useful for, but is indeed necessary to, the continued existence of that group in that it accounts for its capacity to adapt constructively to change. This type of learning is at once systematic and informal. Its concerns are the cultural and social values of individuals withi their particular community and the concepts, belief structures, explanatory systems and analytical perspectives which define tha community. It includes as well those various economic, health and work skills and practices critical to survival.

As an analytical or research construct, ILS is still in the process of being clarified as to its definition, its functions i a society and its relevance to the development process. Nevertheless, it is already receiving considerable attention as point of departure for understanding how the influences of intervention programmes can be made more effective and positive through their being applied in fuller conjunction with the receiving communities and their traditional strategies for dealing with change.

While learning per se is a process that occurs at the level of the individual, the concept of an indigenous learning system is essentially social in its orientation. It suggests an underlying consensus as to the content, methods of transmission, facilitators and sites of learning which will constitute the community's means of maintaining its cultural identity and social continuity. As a conceptualization of how communities evolve, ILS is intellectually and philosophically attractive in its assumption that even poor communities constitute more than simply empty vessels waiting to be filled by development messages; it also serves to explain why any attempts to treat them so will fail. It is an idea consistent with learning theories which credit learners with bringing with them an extensive resource base of cognitive skills, knowledge, experience and values -- resources in conjunction with which any interventions must build if they are to succeed in promoting further learning. This is especially true in the case of adults who bring to the learning event a particularly rich base of knowledge and intellectual skills as well as an often strong motivation to learn.

An indigenous learning system is distinguished from an intervening one along several dimensions. In the former, initiative and control are on the whole endogenous, and while characteristics of the system will evolve over time as social or environmental conditions warrant, the system itself remains as the principal source of conservatism and stability within the society (Bennagen/20). The purposes and contents of an ILS tend to be only very generally articulated and the various methods through which it occurs difficult to disaggregate. Indigenous learning patterns are established and maintained through tradition and are embedded in a complex web of folktales, parental dictums, rituals, child-rearing patterns and social hierarchies.

As an organic part of an organic community system, an ILS is not bound by time, topic or modality; for each of the major transition periods and events of individual maturation and social organization (birth, infancy, adolescence, maturity; marriage, death, illness; leader selection, labour exchange, social control) messages are conveyed through specific media and people within a system that is typically holistic and integrated, involving cognitive, intellectual and attitudinal elements and that is reinforced by a close association between learning and life. Facilitators of indigenous learning tend similarly to be part of the normal functions of the community, rather than segregated as separate professionals, and to perform their teaching roles as part of the total complex of their role as parent, elder, monk etc.

Unlike intervention projects, then, an ILS forms a continuous, comprehensive and natural part of community life, constituting in effect its learning resource base. As such, it presents to an intervention programme both negative and positive potential, either as a confounder of its aims or as a critical channel through which those aims can be realized. It is not within the scope of this paper to explore in great detail the indigenous learning systems of the poor; for one thing, each socio-cultural group will have, by definition, a fairly unique system. Nevertheless, it might be useful to consider, in genera terms, some possible elements of such community knowledge and learning and how these could effect the outcomes of intervention programmes.

a) Margin

It is important to keep in mind the fact that poor communities are communities at risk due to the paucity of resources at their disposal and that any intervention by the modern sector has the potential to be a significant intrusion into what minimal resources they have. While the innate tendenc of human beings toward system maintenance has enabled often surprisingly high levels of quality of life among the poor, interventions of various kinds have done much to undermine them.

In this regard, a very important concept in understanding the position of the poor with respect to interventions, and to life in general, is that of "margin", the psychological and emotional space available to people enabling them to take risk, to engage in new activities or to adopt new attitudes the implications of which are uncertain and the failure of which would not be tenable. It is thus a commodity fundamental to any significant learning or change effort and is, in consequence, a pre-requisite of most intervention activities. Unfortunately, it is also a commodity that the poor for the most part realize they do not have, or have only in small quantity.

An immediately clear implication of limited margin is limited participation. A farmer in North America may fairly readily accept a risky innovation which promises high yield knowing the soil is still resilient, the bank credit sound and the reserve stocks ample. The subsistence farm family in Africa, contending with depleted soil and an undersized field, unpredictable middle-men and markets, no reserves and government indifference, may not. This decision is likely to be neither arbitrary nor obstructionist. Rather, it is likely to be soundly based on reflected experience and most probably to be wise.

b) Compliance

At another, but similarly valid level, the poor are not likely to comply with intervention messages that do not make sense, that contravene their basic understanding of how the world works. Nutrition intervention in Indonesia trying to introduce supplementary child-feeding practices will likely experience problems convincing a Madurese mother to monitor her baby on a growth chart and to increase feeding where declines in growth rate become evident. It is not a question necessarily of resistence or of lack of care on the mother's part. It is rather a matter of her definition of a child's growth and vulnerability as having little to do with food, but a lot to do with its independence behaviour (Launer and Habicht).

Again, a useful frame of analysis for understanding seemingly resistant responses of communities or individuals to interventions comes from medical research, in this case that dealing with the concept of compliance (DiMatteo and DiNicola; Rankin and Duffy). According to current research, patients (like target groups) apparently have a strong tendency not to accept treatment (innovations) offered by their doctor (technical experts) even where such an intervention is expressly intended to bring about their cure (meet their basic needs). Rates of patient non-compliance have been quoted as high as 80%, and the incidence is particularly acute where preventative health care is concerned and thus the intended ideal state somewhat less clearly definable. Even where a patient has actively sought the medical care in the first place, it has been found that remedial programmes are more likely than not to be ignored or to be ineffectively applied.

Of particular relevance to development interventions is the attention being given to those health promotion and disease control programmes which rely for success not on the technical or chemical/drug remediation a doctor can apply but on the changes in life-style that the patient him/herself must enact. Research on diabetes and AIDS, for example, is showing that it is not the validity of the message that is critical but the nature of the interaction between patient and intervention. It is within this context that efforts are being made to reframe the concept of compliance, to altering the perspective away from the patient as sole cause of the failure and toward recognizing a situation of unsuccessful learning and ineffective facilitation (DiMatteo and DiNicola).

The change in perspective is important, and directly relevant to the idea of interventions as occasions of learning. It presents a view of the patient (programme recipient) who is not a passive responder to input from the environment but rather an active agent in the analysis and evaluation of that input. It recognizes that any intervention, no matter how technically excellent or objectively necessary, must compete with the numerous other demands being made on the client's time and energy and on his/her margin. And it reformulates the role of the medical practitioner (intervention agent) from one of expert purveyor of the solution to a problem, to one of collaborative facilitator in discovering and designing that solution.

The terminology of patient behaviour and medical education is slowly beginning to reflect the new paradigm, to use words such as collaboration, partnership and mutual exchange to describe the relationship between doctor and patient, patient and health, medicine and social change. Methodological emphases are also changing, toward ways of better understanding and working within the patient's world-view and contextual constraints.

It is a paradigm shift certainly consistent with that being proposed here for development interventions. While making the process of intervening necessarily more complex, lessons from the compliance literature, along with the concept of risk margin and the overall paradigm of indigenous learning systems simultaneously provide a useful window through which intervention theories and behaviours might be recast. Interventions will always require some degree of margin on the part of participants if they are to "turn up" in the first place. They can also, however, help to build more of that margin by providing timely and relevant information; by guiding communities through more complex, sophisticated levels of socio-economic analysis based on these data; or by back-stopping them with the kinds of financial or technical support that might make their risk less risky. More importantly, as occasions of learning, interventions can provide the opportunity for people to create their own margin for risk through programmes aimed at developing their capacities to explore new ideas, to seek and exchange information, to articulate their own perspectives and priorities and to help the intervenors themselves better understand the barriers they face in attempting to change.

c) Mediating Cultures

While it is clear that the community's indigenous learning base should be taken seriously into account in the application of interventions, it seems unfortunately to be the case that such learning is both difficult to discern and more difficult still to incorporate collaboratively. How the community gathers, manages, transmits and interprets information and how it uses such knowledge to analyze and make decisions about its socio-economic conditions are matters that can really be made evident only through conscious reflection in the context of living them; they can thus be known to an outside agency only through regular and mutual exchange with community members.

This exchange process is made somewhat easier insofar as the ILS, like the community itself, does not exist in isolation from the wider society. While generally considered a conservative force in the community, an ILS is not a moribund concept. On the contrary, it serves as the community's mechanism for constructive integration of outside phenomena into the culture, its means of explaining, adapting or rejecting new knowledge in such a way as to facilitate its own development. This interaction between indigenous and external learning or knowledge systems is possible, of course, because learning as a process is common across all cultures; it is only the specific information and its interpretation which may differ. It is unlikely that any analytical structure or area of knowledge will be unique to one sub-culture or community or that they will be completely different from the learning system(s) of the modern sector. Such isolation would logically preclude the kinds of elaboration and adaptation necessary for cultural continuity. Certainly from the perspective of an intervenor, it is reassuring to believe the differences between the knowledge and learning bases of the community and those of an intervention project would be more of degree and emphasis than of kind.

That there is some degree of mutuality between learning systems suggests the possibility of improved communication through some form of mediation by individuals or groups who have participated in each. Community associations and local NGO's, village health workers, monks and returning migrants are examples of those who can and often do serve a kind of "middle culture" interpretive role. Whether through plan or circumstance, these are people who have had some access to the modern sector and to a range of alternative experience. Being from the community, they also have a direct understanding of its knowledge processing systems.

A particular value of such an interpretive role is that it need not be found fully formed but can be facilitated. Intervention programme workshops, secondments or in-field learning activities have worked to very good effect with different members of families and communities -- siblings, older mothers, monks, mid-wives, teachers -- in introducing into the wider community, in a more mediated, interactive way, concepts of changed practice and methods for arriving at them. The development of Village Health Committees for community-based PHC programmes in Somalia, for example, has served effectively to "maintain access to the established local balance of tribal connections and modern party-based administration, the local communication and decision-making machinery" (Bentley/1024). In Tanzania, similar committees not only have become themselves more interested in learning about health issues but have facilitated a wider demand for health education and the integration of health issues into village organization in general (DeBoer and McNeil/1033). In Northeast Thailand, nutrition and child development outreach programmes have successfully worked with family and community members as research-cum-technical assistants, providing them learning opportunities not simply in the technical issues of feeding practice but, more importantly, in something of the theoretical rationale behind them, in data gathering and analysis methods and in inter-personal communication skills.

From a learning perspective, the mediating function works well to the extent that those responsible are given sufficient opportunity to understand the underlying principles of what is expected to happen in the community by way of change, to test these in practice and to make decisions concerning their implementation -- in order that they can be then in a position to renegotiate and adapt the intervention with the community on a sustainable basis. They need also to be provided room to manoeuvre within their relationship with the intervention itself, as an organizational system, explicitly to consider where disjunctures between the two systems might obtain and how they could be resolved or mitigated.

THE NATURE AND ROLE OF INFORMATION

One element running through much of this discussion has been knowledge, its nature and its use. Particularly in the form of new information, knowledge constitutes the principal content of most current intervention delivery. But it is a commodity that seems so far to have few takers among target communities and little impact. While development agencies in health, agriculture and education struggle to determine how to make the explosion of new information available to the marginalized communities and in what form, widening disparities in access to this information and in the quality and currency of the information obtained, are continuing to reinforce that very marginality and to deepen the gap between the rural and urban, the modern and traditional sectors. Further, perceptions of incongruity, irrelevance and/or conflict between their own indigenous "beliefs" and the scientific "facts" of the intervention are creating for many of the poor increasingly untenable uncertainties as to how to act in some of the most fundamental areas of their lives -- pregnancy, child-rearing, nutrition -- areas in which they previously had reasonable confidence.

Development agencies, domestic and international, are mounting major efforts to reach vulnerable groups with appropriate and timely information on the full range of such areas which they would define as critically problematic. Similar efforts are being made to create new paths, mechanisms and formats for enabling the more effective transmission of and access to this information. All of this activity is certainly a positive and necessary component of the development process overall, and a critical element in the learning that underlies it. It is not, however, sufficient to enable development to occur. Accurate, valid and relevant information needs obviously to be available as the content and stimulus of learning: analysis divorced from data is sterile. But facts alone cannot bring about change; they must be considered, tested and even reframed and reinterpreted in light of personal experience, previous knowledge and current beliefs.

The inherent flaw in a strategy of information dissemination developed independently of a focussed learning framework is that information per se is relative: it has meaning only in the mind of the knower. While it may be argued that some facts are indisputable, true in an independently objective sense, it is an argument that does not bear much weight within the context of development and its purpose of using information as a stimulus and guide to changed behaviour. Today's most prevalent and intractable health problems constitute complex combinations of factors that are themselves complex: disease, sanitation, food habits, environmental degradation and stress. They are composites with as many interpretations as there are cultures, genders, ages and economies through which to perceive them. Problems of agricultural subsistence, child survival and development, women's marginality and poverty itself present similarly multi-faceted systems, similarly ambiguous as to meaning, implication and resolution.

Even when looking at a relatively simple phenomenon, the "facts" of that phenomenon will be determined by perspective. Agronomists "know" desertification; West African farmers "know their soil is exhausted and hunger is on their heels." Health workers "know" mortality rates and ORT; mothers "know all too well the helpless agony of holding a child as it dies of diarrhea" (Durning/154). The patient will know her disease differently than does the doctor; they may both see the same words written on the treatment programme, but while the doctor sees an unarguable solution, the patient may see a further problem to be avoided. Problems and solutions will be understood as they are filtered through cognitive constructs, attitudes and values; as each individual deals with them, their conclusions will not necessarily be the same.

The recognition of knowledge as a shifting commodity, content- and person-specific, has direct implications for its use in development intervention programmes. AIDS education research has concluded that "...how the message is crafted and conveyed is just as important as what is being said" (MacDonald et al/43). In fact, the manner of conveyance may be even more important since it is that which will determine if the message is, in a functional sense, heard at all -- irrespective of its technical quality. The message "to reduce partners" was, it seems, lost on people wanting "to eliminate risk." The first was the answer of salience to the epidemiologist concerned with rates of occurrence in the general population; the second, the question of interest to the person responsible for making decisions based on it. And the compliance literature would concur:

> If medical care involved merely making decisions and giving advice in the format of a purely technical enterprise, diagnoses would be made by weighing the appropriate evidence and treatment regimes would be planned solely in terms of optimal biomedical considerations. Advice would be put into practice by patients and illness would be cured or preventative care consistently managed. Purely technical medicine rarely exists however. The patient is a person who, for many and varied reasons, may resist efforts to care for him/herself (DiMatteo and DiNicola/7). Such reasons may well be many and varied, and particularly so when one considers the context in which health messages among the rural poor in developing countries are given -- and of the complexity out of which those messages are drawn and to which they are expected to apply e.g. different perceptions of illness; past negative experience with medical care; aversion to feelings of dependency. It may even involve, according to DiMatteo et al, "...an attempt to achieve control in a situation in which they have lost control....to restore lost freedom" (/18). It is a point which has particular significance in a context of increasingly dramatic shifts and instability in almost all aspects of personal, social and economic life and where lost control is a permanent feature. It is also significant for interventions which seek explicitly to restore control and foster empowerment.

The packaging of information has importance too in terms of its accessibility to recipients e.g. the degree to which recipients can interact with it and act upon it. The tighter the package, the more technically "fixed" the information and the more structured the instructions, the less tolerance there is for alternative interpretation in light of context -- the less room there will be for either the target community or the facilitator to use the material in the kind of hands-on, experiential way that learning theory would advise. Such "sturdy" messages may indeed be technically accurate, and there is certainly merit in wanting to ensure they are read and applied correctly. The weakness of such material lies in the fact that unless people can become engaged in an active-learning way -- are given room to manoeuvre within the materials, to reflect on, argue with, test and even reinterpret the information -- they may well ignore it. Or they may simply translate it within frames of reference they know but which may not be at all congruent with the original message, conceived as it was from within a quite different perspective.

The way around this dilemma is, of course, to ensure that materials are conceived as much as possible in collaboration with the communities expected to use them, and that they are fully integrated into educationally sound learning programmes, including facilitators who understand both perspectives and can serve as interpretive resources to the clients' review. Facilitators, too, require accessible information of course, as the unsuccessful and professionally undermining history of "teacher-proof" curriculum packages in North America can attest.

Intervention theory has to a large extent been based on the assumption that technological innovation would, by virtue of its scientific merit alone, persuade adoption and use. The theory has not been proven. It has also been expected that the beneficial results of successful pilot projects and model cases would produce inevitable and extended "trickle down" improvement. The expectation has not been realized. Results have in many cases been in fact the reverse, leading instead to new problems of social dislocation, ecological disequilibrium and wider rich-poor dichotomies.

One question that must be asked of the new emphasis on "mass campaign" information dissemination as a strategy for development intervention is whether it will have similar effects. Will information be received, but then neither understood nor applied? Will those who already "know" receive access to yet more knowledge while the majority of the information-poor fall still farther behind? Will greater anomie and dislocation result as the rural poor, through the media and through interventions which present the wealth of what "should be", realize the true extent of their unequal position and the unlikelihood of their ever catching up? Like the technology-based answers before it, information is only a content, a resource. It will be of little value and a waste of resources if receivers do not know how to access, assess and use it on their own terms and to contribute to its further elaboration and reconceptualization, or if they do not have the opportunity to develop these skills. Facilitating such learning must be the focus of work of intervention programmes.

LEARNING, AND NOT LEARNING, LIFE SKILLS FROM INTERVENTIONS

The specific content of intervention programmes varies widely in technical concentration and breadth of focus. Most if not all, however, include some reference to learning of the sort that could be termed "life skills". This category would include that broad gamut of cognitive, affective, interpersonal and motor-skill capabilities required to interact with and to act on the work, family and societal situations of daily life, and in order to anticipate and respond in a constructive way to changes in those conditions.

More specifically, life skills would involve capabilities in reading, writing and numeracy; in basic home, family and work-related maintenance; in record-keeping and budgetting; in setting priorities, seeking information and weighing alternatives; in planning, monitoring and management; in analysis, synthesis and evaluation; in interpersonal negotiation, exchange and mobilization; in tolerating ambiguity and in achieving a reasonable level of self-sufficiency (believing that problems can be resolved through one's own action). These are the types of abilities and potentials that most people will, to a greater or lesser extent, be able to develop depending on genetic endowment and opportunities for practice. They are capacities on which the broader concepts of empowerment and participation are based and the ones which will enable successful engagement with the technical information and behavioural messages of interventions. As such, life skills are at the core of individual, and ultimately family, community and societal, development.

They are also capabilities about which each intervention programme will tend to make certain assumptions i.e. that such skills already exist within the community; that they will be developed simply by virtue of people taking part; or, in some cases, that they are capacities not really possible at all for the poor to develop and sustain. Insofar as these are assumptions, they will tend to be reasonably deep-seated within the working theories of the intervention concerned rather than being made explicit as the stated goals or strategies of the programme. Nevertheless, because they are deep-seated, such assumptions will directly affect practice, and their implications will be seen both in the way programmes are implemented and in the kinds of results produced --in the learning outcomes realized, or not realized.

It is a basic tenet of learning theory that unless people have the opportunity to learn specific skills, attitudes or ideas, it cannot be assumed that such learning will occur. These learning opportunities do not have to be purposeful; in fact, many of the most important lessons are learned through unplanned experience. But it is nonetheless the case that people will not learn what they do not experience in some way, cognitively and/or experientially. Simply that farmers work with on-farm research projects does not mean that they will develop skills in problem identification, data collection or analysis. In fact, most will not, not because they lack the capacity to learn, but because they will not usually be provided the opportunity to try in any reasonably sustained, collaborative and responsible way. The same is true for women in income generating projects; they may learn to make handicrafts, but they will rarely learn to conceptualize or manage the overall programme or to assess the marketability of their products. If the clients of intervention programmes are actually to be empowered as decision-makers, they need to be allowed the occasion to develop and practise the attendant skills and attitudes in the kind of reflected learning setting an intervention programme should be able to provide.

The obverse of the preceding proposition is not that people will necessarily learn from everything they experience. Perceptions as to what is salient will vary and are selective. It can be assumed, however, that the principal input to changes in attitudes and behaviour will come from examples, experiences and messages actually encountered, whether or not these encounters are purposively planned. Important implications of this for interventions are the certainties that recipient communities will learn; that it will be learning over which the intervenors are exercising no purposive control, and about which they have little if any information; and that is being stimulated by factors at play in the context of the programme. At the same time, it is learning which, while possibly in direct accord with the objectives of the programme, might just as easily be completely irrelevant, or in direct contradiction, to it. The first situation may not be a negative one, representing perhaps only a less-than-efficient use of resources if the learning is in fact useful to participants; the second is more definitely undesirable.

INCIDENTAL LEARNING

The kind of learning referred to here has been termed variously incidental, unplanned or unintended, spin-off and accidental. The terminology as such is of little consequence except in one point: the need to distinguish between the learning which is incidental (i.e. unplanned) and the learning which is incidental (i.e. unimportant). Unplanned learning goes on always and in all contexts; it will therefore occur in intervention programmes. What is critical for these programmes, as occasions of purposive learning, is that they be aware that such unplanned learning may well be significant, that it may be such as to engender permanent change in the conceptual framework, self-perception and/or behaviour of participants, and in consequence that it may be necessary to take purposive, responsive action either to more explicitly support those changes that are positive for the community, or to buffer or somehow eliminate those which are not. Such action could include revisions to the materials and strategies used, to the overall structure of the project and/or to its underlying conceptual framework.

Unplanned or incidental learning is an important issue for intervention programmes because of its quality as something of a computer virus: a factor that develops within the heart of the learning system, unknown to and uncontrolled by either programme participants or management but with the potential to influence significantly, for good or ill, the outcomes of the activity. Because such learning goes largely unrecognized in terms of where and how it occurs, or how it influences outcomes, interventions which might well be evaluated as successes or failures on the basis of this influence will not be in a position to use the experience to inform future programming decisions -- to delete or redirect negative outcomes or reinforce positive ones.

Unfortunately, by its very definition, unplanned learning tends not to be immediately visible. It is certainly rarely monitored. But while case examples may be few, reflected professional experience both from the staff of intervention programmes and from the literature does provide a number of provocative hypotheses both as to where positive learning may not be happening "incidentally", and as to where negative learning may be occurring in an equally unplanned way.

For example,

a) Projects which maintain central, top-down control over direction and rationale, management and evaluation and resource allocation will:

* deny the community the critical "right to fail", and thus to complete ownership of the activity; responsibility for an activity even unto its failure subsumes equally the right to evaluate, to make fundamental adjustments in structure and methods, to redefine goals. It allows also for the right to end an activity considered of no value, but implies the responsibility to do so on the basis of reflected judgement, not simply through disengagement. Without this level of ownership, positive attitudes toward, and experience in, the art of successively approximating an ideal solution will not be honed, nor will the skills of co-operation and negotiation necessary for effective adaptation.

* promote the development of a "dual-image" view of the world, the community's own traditional system on the one hand and that of the quite separate external sector on the other. For the first, they have complete initiating and management capacities while for the second, they do not. They learn increasingly to distrust or ignore their own experience/skills as interventions take over more of the basic activities of their lives and become less effective at passing on traditional systems to next generations, thus weakening their ILS. Because opportunities for expressing management/initiating skills are not available within the parameters of the external system, people learn not to expect to apply them in these contexts and instead "learn" dependency. They will concurrently become less inclined to look to one another for guidance and ideas, giving credibility instead to the outside expert.

b) Programmes which focus only on the technical end-product or behavioural solution to a problem rather than on the problem identification and testing process itself will:

* reinforce tendencies toward fatalism rather than promoting problem-solving, analysis and ownership. With the expert or the technology joining fate and the gods as yet another source of unplanned but inevitable intrusions into their lives, communities will be strengthened in their belief that they have little predictive power over where, why or how interventions occur -- but that they must somehow deal with their consequences with the least disruption possible. To the extent that communities either do not know, or do not agree with, the rationale of the intervention, they will be led to learn not how best to integrate its suggestions for change, but rather how best to avoid its suggestions in the hope that they too will pass.

* lead communities to conclude that there is little use in attempting to pursue their own problem-identification or solution-analysis process since it is easier, and often cheaper,

to obtain "ready-made" solutions from outside. In any case, if they have not had experience with the preliminary analytical and planning work of an intervention, they will be less likely to have gained the skills and judgments needed to put together and present their own locally-produced proposal for R and D resource support, thus remaining dependent on the external solution.

* promote an all-or-nothing perspective on the innovation process rather than an iterative, developmental one. Where modern technologies, attitudes or behaviours are concerned, communities will come to expect the project either to solve their poverty, a "quick fix" syndrome, or to disappear (since typically intervenors do not stay around to adapt or correct their package). Communities will not have the opportunity to learn to assess the viability of the product, either in terms of its own characteristics or in relation to other potential alternatives; nor will they learn the art of negotiating useful connections between the complex conditions of their poverty and those characteristics of the innovation which might well be relevant.

* discourage communities from making demands on domestic or international development systems for resources or services to which they have fully legitimate rights as citizens. They will not learn skills of articulating their concerns/ideas with these systems, learning instead to see themselves as somehow outside of, or irrelevant to, them.

c) Programmes which come to the community as fully-formed and resource-endowed packages, typically with standards of technical sophistication, size or complexity unsustainable locally, and which require no cash or "kind" contribution from the community will:

* encourage a learned "subsidy syndrome" in which communities become skilled at assessing and using an intervention only in terms of its material benefits rather than asking where and how these materials are expected to produce substantive improvements to their lives. Nor will they make the commitment themselves to ensure that the programme produces useful effect. Where material resources are provided outside the human resources development framework, communities will learn to become clever charity recipients rather than competent development partners.

* diminish communities' confidence in their own locally-produced and sustainable technologies by reinforcing the idea that progress toward modernization requires hi-tech solutions. Indigenous capacities for entrepreneurship, risk-taking and creative adaptation will thus be undermined.

IMPLICATIONS AND CONCLUSIONS

From the preceding discussion of learning, recipient communities and development interventions, at least two broad sets of issues concerning problems and strategies for the more effective application of development action can be drawn; linkage and human resource development.

a) Linkage

Movement toward a reasonable approximation of humane, sustainable development, and its ideals of empowerment, equity and participation, will necessarily involve learning. But learning is not alone sufficient. Realistically, it is necessary that learning takes place within a socio-political and economic infrastructure which will both provide the poor the margin needed to engage constructively and proactively in the process in the first instance, and then will provide them access to the human, financial and material resources required to implement the solutions identified through that process. It requires that this be done with continuity, consistency and respect for the perspective and potential of the poor and with their full collaboration. All of this, however, is predicated on a kind and quality of integration and/or linkage among the actors, issues and mechanisms of development at the local, national and international level, which to date have been accorded considerable lip-service but of which, at least in the context of intervention programmes, there has been little evidence.

The concepts of integration and linkage within the context of intervention programmes have relevance in terms of at least three dimensions, all of which have been alluded to earlier in different guise: the organizing principles underlying the relationship between intervention and community and the subsequent nature of programmes; the synchrony between the traditional and the modern; and coherence within the development community itself.

(i) Relationships between Intervention and Community

Reiterating the basic point of departure for this paper, intervention programmes are in essence learning events. Whether they perform this function to good, bad or indifferent effect has much to do with the organizing principles which underlie their entry into the community and the design, implementation and withdrawal of their programme. They are more likely to achieve their development purposes to good effect to the extent that their operating theories and actions are integrated with the aspirations, needs and learning characteristics of the communities they serve.

In this respect, and regardless of the technical topic concerned, interventions must take as their reference the situation, the problem and the solutions as these are perceived within the community; in other words, be community-based, problem-centred and experiential in their methodology. They cannot be designed before meeting the clients, as many now are, and simply presented to them as closed paradigms or packages. Nor can they be conducted in isolation from a client feedback which is an integral, iterative and continuous process of exchange and negotiation. Such feedback cannot simply be tacked on as invited comment at the end of the day, again as much of it now is.

The content and focus of interventions need to be coherent and comprehensive within a sector, and suitably integrated across sectors, so as to present a learning situation which is congruent with the situation and conditions of the real world. This is a characteristic more often true of community education programmes than of interventions generally; the Hill Area Education Project in Northern Thailand and CIPS in the Philippines are good examples of efforts toward such an integrative, holistic focus. Advances are being made elsewhere as well, with the move toward community-based health care delivery integrating maternal and child-care, family planning, water and sanitation and general community development, for example. Current attempts to reframe nutrition as a more multi-sectoral, multi-faceted concept are also promising.

But even on a limited scale, programmes can be strengthened in this regard by broadening their definitions of appropriate problem scope and target recipients to include the full and natural network of people and factors which influence the activity -- grandmothers, spouses and traditional healers in MCH programmes for example; transportation policies, food use rituals and climatic fluctuations in those dealing with nutrition. Segmented problem focus will lead only to segmented analysis and equally segmented solutions -- neither of which is likely to lead to sustainable, realistic change.

Content and process of intervention programmes need to be formulated in such a way as to assure the clients an integrated learning experience. The programme needs genuinely to assume and organize for the "right of place" for clients not as passive recipients of the information message but as participants in its formulation, testing and revision; in the management of the programme as a whole; and in decisions concerning whether and how the programme will be absorbed into the on-going life of the community.

Programmes must be intregrated with and build from the natural setting of the community, and consciously work against the tendency to upset or undermine established social equilibrium within and between communities. New and very large inflows of cash and materials resources, and even new opportunities for access to information, can when disbursed according to the essentially artificial criteria of an externally initiated project either create or exacerbate normal inter-group tensions. So too can a programme design which requires the formation of sub-groups and leadership systems, or the conduct of community affairs, in ways that are not consistent with indigenous practice. Insofar as projects will inevitably dislocate to some extent, it is important that they do so as unobtrusively as possible by working from within the framework of the community as an assumed intact working system and ensuring the continued negotiation of equilibrium through joint planning, execution and assessment of the complete project process.

(ii) Synchrony between Traditional and Modern

In all aspects of the development dilemma, better synchrony is needed between traditional and modern sectors, in terms of basic definitions of what development means in the specific contexts as well as in general, and in terms of optimal strategies for bringing it about. Within a learning paradigm, it it does not make sense to assume a linear and essentially incompatible relationship between these two systems of understanding and operating in the world. Neither has all the answers for resolving development problems; neither has identified even the questions in a fully satifactory way. Nonetheless, both have much to offer.

The point is not to force the assimilation of one into the other, but rather to promote more open, interactive collaboration between them. Much of this will be most usefully achieved through intervention-cum-learning programmes in which representatives of both perspectives work together on the analysis of paradigms, concepts and practice. The University of Southern California-Bali video, "The Goddess and the Computer" (Lansing) provides a very nice example of how modern computer technology can work with traditional expertise in water management to create an analytical tool of use to both. Warren (1988) describes equally compellingly the tragic waste of health resources in African countries where traditional healers are actively discouraged from joining their efforts and not inconsiderable expertise with modern sector professionals to create a health care system both more comprehensive technically and more accessible in its coverage.

(iii) Development Agency Coherence

Finally, there needs to be more coherent linkage among the institutions responsible for development activities, both the discrete intervention projects of donor agencies and universities as well as the more generalized, disparate and permanent programmes of government ministries and outreach institutions and of local NGO's. "Coalitions of interest" need to be built if intervention activities are to become more holistic and sustainable, and it is institutions such as these which seem "the logical and appropriate locus for (such) building" (Griffin and Light/38). In turn, intervention programmes would seem particularly appropriate as means to initiate a more consistent and complementary approach given their relative flexibility, the breadth of issues they encompass and the short time spans which should incline them toward purposeful effort to transfer responsibility for the work to more durable venues, including the communities themselves.

Integration and co-ordination are sadly not the penchant of organizations, however, either among departments within a complex institution such as a government ministry or between institutions. Co-operation requires learning: to determine that it should be pursued in the first place, how best to do it and the effectiveness of its implementation. Such learning takes time and energy in both absolute and professional terms since collaboration is frequently interpreted to mean a diminution of one's own power and/or status and thus tends to be resisted. Nevertheless, unless there is genuine co-operation among the multiplicity of development agencies, often working within the same poor communities, on the same problems but with different paradigms, processes, resources and parameters, the work of all will most certainly continue to fall short of expectation. In which case, the major learning which occurs may be on the part of those same poor in coming to distrust, dismiss or destroy those interventions meant to help them.

Effective, sustainable co-ordination is more likely to happen on a small, but comprehensive and incremental scale than as a single, highly visible (and therefore more political) accord. Policy-makers in all institutions can and should provide official sanction for such an approach; actual application, however, will need to happen at the many separate decision-points throughout their systems. Joint in-service education programmes for the field staff of outreach departments (community health, nonformal education, agricultural extension) in areas such as data collection, situational analysis and collaborative action evaluation, is one way to begin to evolve shared paradigms. The exercise of trying to develop inter-agency planning and work documents is another. Mid-level staff of complementary agencies might be cross-appointed, or research and evaluation officers seconded across project teams of universities and ministries.

Pilot and donor-funded intervention projects must take more responsibility and initiative in devolving ownership of their programmes and materials to line-agency personnel, those who work with communities on a permanent daily basis. They cannot be expected to apply the philosophy or procedures of the completed experimental programme without adequate "backstage" awareness of and commitment to them. Involvement of such field-staff in the pilot programme from its inception, even if on an informal level, will provide the opportunity for hands-on learning which might well be the key to its sustained application in the real life of the community and its normally available resources.

b) Human Resource Development

If intervention programmes are seriously to aspire to serving as agents in the promotion of genuinely sustainable and empowering development, it is crucial that they promote in an equally serious and comprehensive way their own internal learning. Unfortunately, this is an activity that few agencies responsible for interventions have so far been pursuing, and it is clear that a primary reason for the failure of such programmes to actualize their mandate as learning venues for the poor is their own failure to learn. In discussions on the role of learning in interventions with professionals across the spectrum of development issues, the most consistent expression of concern was not with the community's resistance but with that of project designers and staff, particularly in terms of learning to apply a more interactive, flexible and collaborative working style.

Eventually, the quality and input of any intervention programme will depend on the last links in the chain, the "turtles at the bottom" as one Indian legend has it, the implementing officers who must come to see themselves differently as facilitators of change, not as its managers. They need to redefine their roles, no longer as one of expert handing out the solution, but as co-developer with the community in discovering that solution. Even the most innovative participatory programme will come to nothing if its spirit remains hidden in the documents, never interpreted into the working patterns of those actually in touch with the community.

In essence, the problem reflects a failure of development agencies to take seriously their HRD responsibilities i.e. to ensure the continuing relevance and validity of their work by ensuring in turn the evolution of their organizations as open systems responsive to, and learning from, the communities being served. Thus, just as farmers, mothers and community leaders are expected to learn: to problem-solve, gather and analyze data, make and evaluate decisions, so too must those who expect to facilitate that process. Intervenors cannot encourage or guide what they have not themselves learned how to do or what they do not continue to practise doing. With the ever-shifting character of development paradigms from technical transfer, through information dissemination, to empowerment, it is critical that the learning of new knowledge, attitudes and skills for acting on and assessing these changes be similarly on-going on the part of its agents.

The scope for such learning is not a narrow one. Development programmes are being asked to decentralize, co-operate, respond to and share power with their clients, open their goals and methods to scrutiny and debate, and tolerate the ambiguity of iterative agendas within inherently complex but difficult to understand traditional learning systems. It is the capacity and willingness of intervention agencies to learn, rather than their power to provide the latest technology, which will allow for these new mind-sets and procedures. And it is a need recognized in the World Bank Background Document on revitalizing basic education provision, the complexities of which call for "increasing the ability of planners and providers to diagnose, test and evaluate learning activities.... The development of a diagnostic capacity in each country is essential" (WB-MBLN/52).

That the task is not an easy one is evidenced by the growing literature on organizational learning and change. Professionals in particular tend to prove resistant to suggestions that alter either their theories or their practice. But it is an undertaking without which any fundamental reformulation of the development process will remain a fiction. Efforts to encourage committed participation by the poor will come to constitute the futile exercise of one hand clapping if that side alone is expected to effect a reframed collaborative relationship. In a reframed paradigm of patient non-compliance, medical intervenors must learn to become partners, to monitor more sensitively by being more interactive, and to have less ego (DiMatteo and DiNicola). In the implementation of animation rurale, facilitators must be helped to "take an analytical view of their life experiences" so as to better understand the meanings behind familiar values and behaviours and to be sensitive to the complexities of the community and the time therefore needed to effect change. It is only through such learning that the frustration and tendency toward over-zealous authoritarianism that unreflective strategies can bring will be diminished (Moulton in Bock et al/37).

CONCLUSION

It seems clear that one is far from being able to suggest the comforting thought that intervention programmes are effectively serving to generate a sustainable development which is human, humane and equitable in its results or even that progress toward this goal is in train. What can be suggested, however, is the cautiously constructive thought that such a goal is possible. The fact is that the poor continue to learn on the basis of their own resources and initiative and with the result that they are continuing to sustain reasonably viable, intact socio-cultural and economic communities. That they are having to do so within the context of increasingly damaging onslaughts from an inequitable world order most certainly constitutes a damning crisis for those of us who are not only on the benefitting side of this unequal balance, but are also to a large degree responsible for maintaining it. That the poor are able to sustain themselves at all speaks highly of their capacity to learn and adapt. That they are having to effect this learning in conjunction with the often undermining "help" of intervention programmes theoretically intended to extend the resources and the margin they need to do it, but which are failing so badly to do so, seems particularly unjust. Both sides of the development enterprise must learn if genuine development is to occur; the initiative for supporting such learning rests with the intervenor.

EXPLANATORY NOTE

Research for this paper was conducted over a five-month period through interviews and literature reviews in Malaysia, Thailand, France, the Netherlands and Canada. Contributions to the background also came from researchers in Africa, commissioned by IDRC to collect the more fugitive types of materials not readily available internationally.

These contributions have been very helpful in establishing the themes as well as the content of the paper. The interview data in particular have been useful and to the people who gave me their time, I express my sincere appreciation. Responsibility for the final content of the paper rests solely with me, of course, and I thank IDRC for providing the funding necessary for its production.

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THE USE OF PARTICIPATORY, SCHOOL-BASED, AND COMMUNITY-SUPPORTED INNOVATIONS IN FORMAL BASIC EDUCATION

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THE USE OF PARTICIPATORY, SCHOOL-BASED, AND COMMUNITY-SUPPORTED INNOVATIONS IN FORMAL BASIC EDUCATION

1.0. Introduction

This report is a review paper on the use of participatory, school-based activities in formal basic education in the developing countries. The review is global in scope and includes relevant innovations from Latin America, Asia and Africa. Obviously, due to its wide geographical scope, the coverage of this review cannot be comprehensive. However, the information which has been collected is extensive enough to conceptualize a framework for these innovations. The framework will focus on the following areas:

a) what are the contextual and educational factors leading to the development of such activities or innovations?

b) what has been and is currently being done worldwide in the developing nations in the area of the review?

c) what are the consequences, both intended and unintended, of these participatory school-based activities in different areas of the educational process?

d) how can these activities or innovations be generalized, replicated and sustained, particularly in the context of the hard realities of rural life?

The rationale for this review extends from the observation of the increasing trend in developing nations to move away from the development and implementation of centrally-mandated educational innovations to more decentralized school-based innovations. These innovations emphasize active participation of all concerned with the educative process, namely teachers, headmasters, students and the community itself.

While there has been much rhetoric and exhortation from politicians, administrators and educators for more decentralization of education and with it, greater involvement or participation of those in the school and the community in all aspects of the educational process, current research and evaluation evidence shows consistently that these participatory activities are seldom sustained and even more seldom replicated. In view of the identified crisis in basic education which forms the focus of this conference, it is timely and pertinent for us to examine the state-of-the-art of these activities at the primary school level in developing nations along the areas outlined above.

2.0 Scope of the Review

This review is primarily concerned with participatory innovations related to one of the main issues of decentralization, namely the issue of the relevance and quality of education in its broadest sense. It is not directly concerned with the other issues which may be considered as central to the process of decentralization such as: the issues of access and equality; the use of local or community financing of schools (which I have been told will be reviewed in another paper at this conference); educational policies; and the provision of alternative approaches for basic education. However, some of the activities or innovations pertaining to these issues will be addressed if they are related to the main focus of the review.

3.0 Impetus for Decentralization

This review does not examine the processes and issues of decentralization per se. However, the examination of the development of participatory, school-based and community-support innovations in the primary schools will neccesarily consider the different factors which have provided the impetusfor decentralization, and with it, the innovations to be reviewed.

The impetus for this trend towards decentralization may be attributed to several concerns which, as noted by several researchers (for example Cummings, n.d.; Bray, 1986) are:

* ideological - where democratization of educational policy decision-making is seen as a way of providing a means of empowering the ordinary people, and as a way of maintaining the social codes or values of the local community;

* political - in the sense that decentralization may be a way of enhancing political stability, particularly in countries which are multi-ethnic, where each group has a different religion;

* economic - with rapid increases in population and ever rising inflation, a large number of developing nations are finding difficulties in financing their educational systems and community funding is one way of alleviating this financial problem;

* quality - related to the above, there is increasing concern over the decline in the quality of education due to factors, such as lack of material resources, poorly paid and demoralised teachers and irrelevant curricula.

3.1 Focus of Participatory, School-based and Community-supported Activities

This review focuses on decentralised, participatory, school-based activities which are directly or indirectly related to the last of the concerns listed above, namely the improvement of the quality of education in schools. These activities can be those initiated, organised or participated to actively by members of the four groups of people closely related to the schools, namely: teachers, parents, the community and pupils. The participatory, school-based activities identified from the literature so far can be categorised into four aspects:

* education - this aspect encompasses innovations where different activities are organized and involves the participation of teachers, parents, the community at large and even pupils. The general aim of these activities is to improve the quality of education and specifically, either to raise the academic achievement of children and/or to develop attitudes, values and skills relating to the personal/social development of children. This aspect includes innovations which look at the participatory ways in which:

- teachers are prepared for more effective teaching, such as school-based training and research;

- parents are involved actively in either supporting their children in their studies and/or teaching them at home or in the classroom;

- the community is involved in the educative process either collectively through committees or individuals involved in the teaching process;

- the students themselves are involved in the teaching process through activities like peer-teaching;

- members of the community are involved in preparing teaching resources;

- the community assists in the achievement of educational objectives other than academic achievement.

* curriculum - this aspect includes the identification and development of what is to be taught in the school, specifically the knowledge, attitudes and skills which are relevant to local needs and adult survival. These participatory activities include the involvement of:

- the community together with teachers in determining curriculum content collectively through different types of committees/organizations;

- individuals with relevant local knowledge and skills in the curriculum development process;

- the community including students in the preparation of books.

* resource - this aspect focuses on the use of resources (human, financial and material) available in the community around the school to:

- assist in the construction of school buildings and other facilities (playing fields, prayer rooms) in different ways such as, financial contribution, and providing labour and material;

- repair and maintain the school buildings and other facilities;

- increase the types of services and experiences provided by the school.

* policy - this aspect deals with participation in the decision-making process regarding school policy and management as it relates to the improvement of the quality of education. This type of participation may include the involvement of:

- the teachers in the policy and management process of the school;

- the community in the decision-making process at different levels through different structures like, the Parent Teachers Association, School Management Committees, etc.;

- the students in some aspects of the decision-making process.

Although the participatory, school-based activities can be divided into the said four aspects to delineate their focus, these aspects are obviously not mutually exclusive. A number of participatory innovations will be concerned with more than one of these aspects.

4.0. Involvement in Participatory School-based Activities

The following sections describe briefly selected projects or innovations involving four groups of people, namely, parents, community, teachers and pupils in the participatory, school-based and community-based activities or innovations reported in the literature collected so far. This review will draw mainly from projects or specific innovations rather than national programmes such as new primary programmes on curriculum, although some reference will be made to these national programmes as they relate to community involvement.

4.1. The involvement of Parents

In this review, parental involvement is distinguished from community involvement. Parental participation in education, either in the context of the school or in the context of the home, is directly concerned with the education of their own children. The participatory activities for the parents will be discussed in relation to some of the categories identified earlier, namely, pedagogy and curriculum. As to be expected, parental participation in the other areas identified, such as policy and resource cannot be directly related to their children and, hence, will not be discussed in this section.

4.1.1. Participatory Pedagogical Activities

This category of parental participatory activities encompasses innovations in which parents are actively involved in supplementing the teaching of their children to achieve the different goals of basic education, that is, the attainment of the basic literacy and numerical skills; to develop positive attitudes and values relating to the personal/social development of children; and, in general, to improve the quality of education.

The literature collected shows that parental participation in the education of their own children to raise their achievement level and/or develop certain values and attitudes can be categorized under three approaches:

a) The awareness approach. This may be referred to as the indirect approach. It is used by projects to increase the parental awareness of: (i) their roles and responsibilities in the education of their children and, (ii) the instrinsic value of education. These activities could be in the form of dialogues, posters, teachers' home visits and in one case, a specially commissioned movie. Another project even goes as far as developing a parents' training module, complete with tests. The assumption of this approach is that by increasing their awareness and knowledge of the matters outlined above, parents will become more supportive of their children and take steps to help them with their school work.

b) Parental help at home. This may be seen as a direct approach in that it involves parental participation directly in the instructional process albeit at home. The projects using this approach provide specific guides or suggest activities for the use of parents. Thus the parents are actually participating in the instructional process. Projects in this category may consist of activities such as, regular help with homework, organisation of a home study timetable, and provision of regular reinforcement and positive parenting. To increase the parents' capabilities to carry out the teaching tasks, several projects have organised activities such as, parents' schools, home visits by teachers and individual tutoring of parents by the teachers.

c) Parental help in school. In this approach, parents are used to help teach their children in the classroom. Examplars of this approach could be parents acting as teacher's aides on a regular basis, parents going to school and helping in the classroom at certain times of the week.

4.1.1.1. Increasing Awareness

Examplars of this type of parental involvement are plentiful in the developing countries. They range from projects which are specifically focussed to this approach, to projects which form a part of general instructional model, or to large-scale programmes of national curriculum renewal which attempt to encourage parental participation in the educational process.

The Joint Innovative Project (JIP) organised by the APEID/UNESCO, Bangkok has parental and community involvement as one of the thrusts of the national projects carried out by the countries involved in this overall regional project. The countries which took part are Nepal, India, Sri Lanka, Thailand, Malaysia, Indonesia, Philippines, Korea and China (Gansu province). Most of these countries attempted to sensitize parents vis-à-vis their role in supporting their children's education in a variety of approaches (Ghani, 1988).

The JIP from Nepal is a good example of the extensive use of different media in trying to get the message through to the parents. One of the main thrusts (Nepal, nd) of Nepal's JIP is the development of a multi-media kit, consisting of pictoral booklets, story books, posters, slide/tape and radio programmes developed to stimulate parental concern and commitment towards supporting their children in school and towards encouraging them to develop children's learning at home. At the later stage of this project, a fictional movie which portrays the benefits of education was produced and circulated on the video medium. This movie, to catch the attention of the parents, incorporated all the traditional elements which make Hindi movies attractive to their audience - a lot of songs and dances.

School personnel used these multi-media materials in small group meetings with the parents. In addition, parents were issued with the pictoral booklets so that they could emulate the pupils' support illustrated in these booklets (JIP, Nepal, n.d.). The project also, through these materials, tried to encourage parents themselves to study at home. In a way it was providing some kind of non-formal education for the parents.

Another related project in Nepal is the Instructional Improvement in Primary School Project (IDRC) which attempted to teach parents to facilitate their children's learning at home using pictoral books and posters.

Informal evaluation has indicated that the use of these multi media materials has been able to:

* enlist and increase parental participation in their childrens' education;

* change teachers' attitudes to the positive;

* decrease the drop-out rate and improve academic performances.

Several other countries under the JIP such as India, also used the same multi-media approach, though not to the same extent as that described above.

Korea's effort towards educating parents on how to help with their children's education is very interesting and worth noting. The Korean JIP opted for the development of materials to inform parents on how they could help their children academically in operational terms. It was assumed that the knowledge gained through the reading of these materials would contribute to raising the achievement level of their children. The materials covered five areas:

- the process of learning in relation to the achievement test;

- the children's cognitive and affective characteristics, such as intelligence, creativity and attitudes;

- the home environment: desirable home environment, parenting;

- the school environment;

- characteristics of under-achievers together with specific guides on how to help such children.

The materials were administered over a period of two months. With these materials were 9 worksheets designed to ensure that parents, followed and understood the materials. These worksheets were collected and marked. The results of children whose parents had studied these materials were compared with the 'control' group. Although the returns of the worksheets showed that over 80% of the parents had responded to the questions in the worksheets, there was no significant difference between the scores of the two groups of children (Korea, JIP - KEDI, 1986). The JIP in the Gansu Province used yet another approach to raise parent consciousness regarding their roles in the education of their children. The Gansu JIP opened a school for parents. The purpose of this school was to teach parents to understand and support primary education (JIP China, 1987).

Direct Involvement at Home

Some projects have tried to go beyond the awareness stage to a much more concrete operational stage, where parents were given specific tasks to do in their homes to help their children to study.

The IMPACT project in the Philippines had defined specific roles for the parents such as, monitoring their children's progress and reporting their learning activities to the teachers. These roles were imparted through discussions with the teachers. Prior to this, parents with initial commitment to these new roles were canvassed through meetings and campaigns. The project used fiestas to get the parents' attention. However, early evaluation indicated that it was difficult to get parents to accept their new roles.

In the Sri Lanka JIP, parents were shown how to time-table the children's activities at home so that they would set aside a regular time for their studies. Parents were also shown and encouraged to provide an appropriate study place, to create a supportive home learning environment.

The home study time-table was also used in Sarawak's Programme for Learning Enrichment (Van Leer). This home study timetable was one of the three aims of this project, namely the study of how the parents and the community in the rural areas of Sarawak can be encouraged to be actively involved in the education of the children.

There, several activities were carried out in relation to the above aim. Initially, an attempt was made to raise parents' awareness of their roles in education through dialogues, seminars and PTA meetings. Secondly, home visits were made to families whose children were having some learning problems. This was to help parents understand their children and to be aware of the value of education, as well as to accept the responsibilities of parenthood. There were some problems regarding this activity in rural areas, as both parents were out in the field until nightfall. Most of these home visits had to be made during the night.

Thirdly, parents were shown how to plan their children's activities at home using a home study timetable and how to organise children's activities at home including time for personal study/homework. In association with this home study timetable, parents were shown how to supervise home study by the teachers during the home visits.

The evaluation studies (Sarawak, 1990; Ghani, 1988) noted:

* an increase in both the number of PTA meetings and activities as well as an improvement in attendance at meetings;

* an increase in activities organised by parents;

* increased participation in the use of the study-plan (timetable).

These studies also noted some relationship between the use of the study plans and pupil achievement. Kampung Buntal, which was one of the schools with strong support for the study plans, became one of the top schools in the 6th grade state assessment for the period under study.

Perhaps the most comprehensive of the parental participatory project is the Philippines' Parent Learning Support system which forms the main part of the JIP project.

Another project which had parental participation as an integral part of its learning system is the Philippine's IMPACT project. In the IMPACT instructional model, parents were assigned initially to help as teachers' aides, but most of the parents came only for a few weeks (Flores. 1981).

The School and Community Project which involved Bolivia, Colombia, Chile and Venezuela was a research-based project to look into the effects of school (teachers) and home on learning (Avalos,). One of its main conclusions is that the quality of parent-school relationships appears to be an important factor in the pupils' success. Children who failed in the 1st year were found to have parents who did not relate appropriately to the school. 'Good' parents are those who:

* pay fees on time;

* volunteer to help when requested;

* help children to learn;

* question or discuss with teachers their children's progress.

These observations also suggest that beneath the parent-school activities, there are different sets of values and beliefs held by the teachers and the parents which need to be understood and reconciled.

Given the distinction drawn in this review between parental involvement and community involvement, working participatory school-based projects in the area of curriculum where the parents participate directly with or for their children are very rare. Such parental involvement can be found only in decentralised systems where the schools have control over the curriculum content and design.

The one examplar of this type of parental participation is the project in Honduras described earlier. This project 'Development of a Flexible Curriculum located in the Agua Blanca Sur community, involved the parents working together with the school and pupils to develop specific areas of the curriculum which met the needs of the community, such as nutrition, affecion, close community-school relationships through workshops attended by teachers, parents and pupils. (Calvo, 1989).

In Papua New Guinea, in some schools, weekly parental and citizens' days have been organized, during which parents, teachers and pupils are involved in some aspects of the curricular decision-making in Agricultural Studies.

4.2 Pupils' Participatory Activities

In the discussions that follow, pupils' participatory school- based activities will focus on activities where pupils assume roles which are quite different from those of the learners. Thus, this section will explore the different innovative ways in which pupils are actively involved in each of the participatory areas identified earlier; the pedagogical, curriculum development, policy and management, and resource activities. This review will not include the active or participatory learning activities which have formed the main-stay of the modern curricula.

In a sense, the pupils in the school constitute the largest and seldom tapped potential resource for the school. It is possible for the pupils to participate in nearly all the different types of participatory activities discussed above. For example, they can participate even at the primary school level in school decision-making through school councils; they could contribute to the curriculum through a learner-oriented curriculum and through the provision of local materials. However, there have been relatively few projects which have attempted to make use of this potential human resource, and most of the projects that have been undertaken were mainly related to the use of the pupils as supplementary teaching resource to cope with the increasing demand for education in the developing countries.

4.2.1. Pedagogical Participation

It would seem from the literature available, there are two ways in which pupils are used to supplement the teaching tasks of the teachers or school. The first type of pedagogical participation is related directly to the teaching of the cognitive aspects of the curriculum, that is, the teaching of the basic knowledge and skills found in the curriculum. This type of pupil participation forms the bulk of the pedagogical activities found in this review. The use of pupils to teach other pupils either in a highly structured situation or in a more informal grouping of children has been generically referred to as peer-teaching.

The second way in which pupils are used to supplement the role of the teacher is related to the more affective part of the teachers' responsibilities. Students can be used effectively to help other children adjust to the demands and environment of the schools. This mode of pupil participation may be called the Buddy system.

4.2.1.1. Student-teaching

Different projects have developed different modes and different names for the use of pupils in the teaching process. It has been called 'programmed teaching', 'peer-tutoring, 'programmed- tutoring', programmed-teachers' and 'peer teaching'. For the purpose of this review, pupil-teaching can categorised according to the ways in which the teaching is organized. These are:

a) Inter-grade mode - where a senior pupil is used to teach or tutor junior pupils. To distinguish this mode from peer-teaching, it will be referred to as pupil-teaching.

b) Within-grade mode - where a pupil is used to teach or tutor others in the same grade. In this study this will be referred to as peer-teaching.

c) Combination mode - where the two modes above are used in combination at different parts of the learning circle.

Inter-grade Modes

In the inter-grade mode of pupil teaching, the older pupils from the upper grades are organised to provide instruction to the younger pupils in the lower grades. This can be carried out in the school with the conventional structure where the children are separated chronologically into their different grades or in a multi-grade structure where children of different ages or grades are located in the same classroom.

One example of this mode of pupil-teaching is the experiment being carried out in Hong Kong using senior pupils to teach language to junior pupils (Winter, 1989). This experiment compared the effectiveness of a group of teacher trainees with a group of pupil peer-tutor supervised by pupil teachers to promote Chinese reading skills using the 'Paired reading' strategy.
The results showed substantive gains made by all groups involved: the tutor, tutee and pupil teacher.

A similar experiment on effects of peer tutoring using the Paired reading strategy for English language showed significant gains for the tutee.

The results of these Hong Kong pupil peer-tutoring experiments suggest that greater emphasis on training and supervision of the tutors would increase the effectiveness of this strategy. The investigators of these experiments suggest that the results show that with careful planning and supervision it is possible to use pupil peer-tutoring for weak pupils. They also feel that pupil peer-tutoring should be promoted as in addition to academic gains, this strategy can encourage attitudes of co-operativeness, helpfulness and caring.

Jamaica's Primer Project (McKinley, 1981; Cummings, 1986) is another example of an innovation which uses mainly this mode of pupil-teaching. Project Primer used what is called 'programmed tutoring' as one of its main instructional strategies. Some children in the 8th and 9th grades of the "all-age school" (1) were selected to tutor children in the lower grades. These programmed tutors were provided with programmed teaching guides and were closely instructed and supervised by the teachers in their tasks. Project Primer is one of the later variants of the IMPACT instructional system (discussed below) which in its process of adaptation has moved away from the combination mode of pupil teacher which formed the mainstay of the IMPACT system.

Within-grade Mode of Student Teaching

This mode of pupil teaching is closest to, in the strict sense of the word 'peer', the definition of peer-teaching. There are a number of projects in the developing countries which use this mode as the main part of their teaching approach. One of these projects which has attempted to directly measure the effects of peer-teaching on academic achievement is the Joint Innovative Project(2) of the Philippines (Renales, 1987; Valisno, 1988).

This project was carried out in 1986-88 as part of the Joint Innovative Programme (JIP) organized by UNESCO Bangkok. In the Philippines JIP, peer-teaching in Mathematics for the 6th grade formed one of the components of the project. Children from the high achiever group were used to peer-teach the weaker children in the class. This peer-teaching was generally carried out after school hours, either in the library, vacant classrooms and the peer-teachers' home. The teaching strategy employed consists of the review of the day's lesson followed by additional exercises either prepared by the teacher or from the textbooks and finally a formative test carried out at the end of each session.

The gains in academic performance were impressive where tutees who attended all the sessions were able to obtain a 75% passing grade in the summative tests. Their average improvement for the tutees was about 25%.

Another project which had attempted to use peer-teaching as part its instructional model is Malaysia's Project InSPIRE (Othman and Loganathan, 1981; Cummings, 1986; Lim, nd). This project funded by IDRC is another of the IMPACT variants. However, unlike the other IMPACT projects, pupil teaching was organised using the within-grade mode rather than the combination mode found in most of the IMPACT projects. In the InSPIRE instructional model, peer-teaching was to be the major strategy in the upper grades where most of the children have attained the basic skills. Although the project did not extend to the upper grades, some peer-teaching was tried out in Grade 3. The peer-teaching was operationalised as paired work, where one pupil of a pair (who were randomly paired) would act as the tutor, supervising the tutee in carrying out assigned exercises using specially developed materials. Half way through the lesson, the pair would exchange roles.

The objective of the InSPIRE peer-teaching approach is not only to increase the academic attainment of the pupils, but also to develop co-operative learning and to increase their skill in managing learning.

Combination Mode of Student Teaching

Projects which use the combination mode of pupil teaching are characterized by the use of: (a) older children, usually guided by programmed material, to teach pupils in the lower grades and; and, (b) pupils in the same grade to teach each other in a peer-teaching situation in either a formalized structure or in a more flexible and informal manner.

A well developed example of this mode of pupil-teaching is the Project IMPACT's instructional model which includes 'programmed teaching' and peer-teaching. The IMPACT instructional model was first initiated in the Philippines and in Indonesia chiefly through funding from IDRC (Flores,1981; Cummings, 1986). In this IMPACT model one of the instructional strategies for the older children is peer-group instruction using programmed materials. Students in the upper grades (4,5,and 6) are trained by the teachers to teach the younger children in groups of 4 to 6 children from grades 1 to 3. This teaching by the older children is called programmed teaching as these pupils use step-by step guides supplemented with some audic aids to teach the basic skills. Through this mode of pupil participation in the teaching process, it is hoped that the pupil-teacher ratio could be raised as high as 150:1 while reducing the cost of basic formal education.

Although there were a number of implementation problems, particularly with regards to this programmed teaching scheme (Flores, 1981, pp 40), an internal evaluation of the project showed that the IMPACT children performed better than children from non-IMPACT schools.

The Bangdadesh's variant of IMPACT followed the Philippine model quite closely. Pupils were used to teach young children the basic literacy and mathematical skills. Pupils in the upper grades learnt through peer-groups with each pupil taking turns in managing the groups.

In Indonesia, the IMPACT instructional model was called the PAMONG Project (funded by IDRC together with USAiD). PAMONG's pupil-teaching strategy is similar to the IMPACT model and goes under the name 'peer-tutoring'. The effectiveness of peer-tutoring was studied in a 'micro-experiment' (3 days intervention). It was found that the peer-tutoring strategy used in remedial teaching by PAMONG was as effective as teacher mediated strategies (Mudjiman, 1980). The Pamong's peer-tutoring was also seen as being beneficial to the tutors as well as to the tutees. The peer-tutoring strategy can be effective if given close guidance by the teacher. With this guidance peer-tutors are capable of providing cues, reinforcement and feedback (Sarapee, 1979).

This combination mode of pupil teaching was also used by Improved Efficiency of Learning Project in Liberia, another of the IMPACT variants. Although the older pupils were used to assist in the daily remedial sessions for the younger children, the emphasis is in the use of peer-teaching in the later years of the primary school. Students are organized in study groups using the programmed learning materials under supervision of rotating leadership. The group leader is provided with a booklet which describes the learning procedure and also contains the answers to questions found in the prepared material (Cieutat, 1981).

An example of flexible, informal arrangement is the pupil teaching aspect of the Child to Child programme (Hawes,1988). This pupil teaching is seen as a more flexible system than the IMPACT model. Children can teach others in their class, as well as across class and even pre-school children both in and outside the school.

Although the Child to Child programme is primarily concerned with health education, it explores the different ways in which health education can be used to integrate teaching and learning in other areas of the curriculum. It is estimated that there are more than 150 projects in the Child to Child programme in 39 countries.

In addition to the use of the two modes of pupil teaching discussed earlier, in the Child to Child programme in some countries, for example Botswana, the older children help pre-school children prepare for school. The older children also benefit from this arrangement in that their affective and cognitive growth is enhanced.

4.2.1.2 The Buddy System

In some sense, the buddy system is similar to the cross grade pupils tutoring, except that the objectives of the buddy system are much broader than the focus on academic achievement found in the two types of pupil teaching strategies described above. In the buddy system, pupils are also involved actively in orientating the young children to the school, not only to help them adjust but also to enjoy school with the help of a close buddy.

From the information available, it would seem that the buddy system has been used in two different ways:

a) the pairing of peers from the same grade;

b) the pairing of seniors with new pupils.

An example of the first type is the Buddy Programme found in the Philippines (APEID, 1986, pp 42). It was developed to increase retention of learning in the rural primary school. In this programme, children identified as potential droputs or low achievers were paired off with a friend (buddy) from among classmates. These buddies have above average academic performance and a pleasing personality. It was hoped that through constant interaction, the potential drop-outs would improve their performance in school and begin to enjoy school life.

The second type of the buddy system is found in a number of schools in Singapore (Gopinathan, 1990) where pupils in the upper grades are paired off with the new pupil intake at the beginning of the year. The role of the older pupils is to help the new ones to adjust to the new environment. In Thailand, this buddy system is an integral part of the school curriculum where the older pupils are expected to help the younger in various ways. One of the responsibilities of the seniors is to help the children return home safely from school each day.

4.2.2 Curriculum

Student participation in the development of teaching-learning materials, such as the making of audio-visual materials has been carried out in some informal manner in schools. There are now some projects which have involved children in a more formal manner to write reading materials, such as books (text and supplementary readers) for the school.

A few projects have involved the active participation of pupils, either as individuals or as groups in the different processes found in curriculum development. Two of these processes with pupil participation are:

a) the planning and selection of curriculum content and;

b) the development of curriculum materials.

Student participation in the curriculum development process does not necessarily mean that the pupils are solely responsible for them. In most cases, it implies that these processes are organised in such a way that the pupils are part of a group working on them.

4.2.2.1 Planning and Selection of Curriculum Content.

The active involvement of pupils in the selection of curriculum content is usually associated with the decentralisation of curriculum control, in countries where there is a substantial amount of local content in the curriculum. In Honduras, for example (Calvo, 1989) there is a project in a small community called Agur Blance Sur which used pupils, parents and teachers from working groups to select curriculum content and activities related to 14 areas of needs identified for the community such as, nutrition, affection, community-school relationships. It seems that the overall interest and attitude shown by the pupils to this process was positive.

In the Self-Help Action Plan for Education (SHAPE) project in Zambia, the School SHAPE Co-ordinating Committee (Shape, 1984, 1987) includes two pupil representatives (a girl and a boy). Among the many tasks these school committees are supposed to carry out, (Shape, 1987, pp. 33) you will find:

"-1- identification and initiation of resource and production activities; and, -2- coordination of such activities to ensure proper timing, diversity, complementarity, desirability in terms of needs, feasibility and resources available."

Although the evaluation (Lubasi, 1989, et al, pp. 25) of the project is reported in some detail in the next section of this paper on the participatory activities of teachers, this evaluation unfortunately did not look at the contributions of the pupils in the deliberations of these committees.

In the Cianjur project (Moegaidi, 1990), 20% of the curriculum is devoted to local content, and pupils are involved with the teachers in the selection of the local content and the activities associated with it.

While there are some projects as above which have tried to incorporate pupil participation in the curriculum decision-making process, there is very little evidence to show whether they have actually actively participated in groups or committees which have been set up for the purpose, or whether their contributions were respected and seriously considered in the course of discussion.

4.2.2.2 Development of Curriculum Materials

The use of pupils to produce curricular materials, particularly printed materials, is relatively a rare occurrence. One interesting use of young pupils' talents in Australia is the preparation of the 'Big Books' which are subsequently used as reading materials for the class. However, in the developing countries, pupil participation in this type of activities is even more rare, which makes the MINDSACROSS project in Uganda even more interesting.

This MINDSACROSS project which will be presented by the chief researcher as case-study of the main theme of my presentation, is funded by IDRC. It is designed to:

" harness the developing intellectual abilities and skills of pupils as they grow and move from primary to secondary school to use language and other academic skills to compose, write, read, discuss and produce, for publication, indigenous literature."

Although the books written by the pupils are used as part of the curricular materials to be used in the primary schools, their production is seen as a means to enhance intellectual and social development.

There are now over 60 books produced, covering nearly all the subjects in the curriculum. As the main researcher for this project is with us today, she will provide a more detailed description of this project after this presentation.

4.3 The Teachers' Participatory Activities

In this review, teachers' participatory activities are those in which the teachers assume roles other than their teaching role. These participatory activities will include, for example, innovations or projects where the teachers participate in the planning and the running of in-service courses for other teachers, or in the policy decision-making and management of the school.

From the literature collected so far, the bulk of participatory innovations which involves the teachers, apart from their teaching roles, are found in the pedagogy and curriculum areas of focus. Teachers' involvement in the policy decision-making and management of the school is found but usually not in the form of a project activity. For the teachers, the resource area of focus, as described earlier is not applicable, they are the main resources for learning.

4.3.1 The Pedagogy Area

In this area of focus, most of the teachers' participatory school-based activities are related to the planning and organization and implementation of the different forms of school-based training. The movement towards the decentralization of teacher training has now spread to most developing countries. As mentioned earlier, the impetus for this movement is partly political, partly economic and partly educational. This review will be concerned with the different forms or models of school-based training which the teachers and headmasters in a school have initiated by themselves or have been called upon by the central authorities to actively participate in a school-based pre-service programme or an in-service programme. It will not include school-based programmes where the trainers are brought to the school from outside the school.

This review also attempts to distinguish in-service training from professional development activities organized by the teachers themselves either at the school level or outside the school. In-service training for this review is seen as an activity to meet specific curricular needs, whereas professional development is seen as consisting of activities which are more general in nature and geared to the overall improvement of teacher competence.

4.3.1.1. School-based Pre-service Training

School-based pre-service training is organized in such a way that the student teacher spends a substantial portion of his training in the school (not as part of teaching practice component of their programme). In the school, the selected experienced teachers participate fully in training the students. One promising example of this type of teacher's participatory activity is the Field-based Teachers' Training Programme in Northern Pakistan (Chowdhri and Abbas, 1987) where headmasters and teachers participate as teacher trainers or as they are called, master trainers.

This programme is a part of pre-service training for the Northern regions of Pakistan to meet the need for trained teachers in a rapidly expanding school system. As part of their training, students are assigned in pairs to a class (grade 1 to grade 5) for a period of nine months. Each student is required to teach 3 periods and observe 3 periods taught by the other student each day. Daily discussions on the day's lessons are held between student-teachers and master trainers.

The master trainers are headteachers and some of the experienced teachers in the school. Master trainers are selected on the basis of their 'innovative outlook' and their teaching effectiveness. They are required to guide, advise and assist the student teachers through discussions, constantly relating theory to the realities of the classroom. They are also required to assess student-teachers.

A comprehensive evaluation of the Field-based Training Programme showed that that teachers following this programme had a better grasp of the basic teaching techniques than those following the normal system of training. However, these field-trained teachers were not any more innovative, pupil-oriented nor inquiry-oriented than the conventionally trained teacher.

School-based In-service Training

Projects or innovations in school-based in-service training which involve headteachers and teachers in their initiation and organization may have different organizational structures. The training may be initiated and organized in:

a) a single school arrangement; or,

b) a school cluster arrangement.

As in the other categories, these two are not mutually exclusive. A number of projects such as, Cianjur incorporate both types of School-based In-Service Training (SBIT).

One example of the first type of in-service organization can be found in Korea (APEID, 1986) where it is the responsibility of all headteachers to organize SBIT within their schools. These SBIT courses are based on teachers' identification of training needs. Usually the teachers take the initiative in developing programmes and activities of the training. All members of the school are involved in these courses.

A National Status Study conducted in 1982, suggests that the school-based in-service training programme in Korea tends to be more successful than other forms of in-service training in improving the teachers' knowledge and competence because:

* these are initiated and organized by the teachers themselves voluntarily;

* of the democratic, facilitating and rewarding atomsphere of SBIT;

* of the support (administrative and psychological) given by the headmaster;

* teachers feel that they have more control or ownership over them.

A very interesting example of this type of SBIT is the Philippines' School Learning Action Cell (SLAC). SLAC is a form of school-based in-service model (Proded, n.d.) which has as its core an informal grouping of the headmaster of a school and a number of his teachers who have previously attended a centralised programme of teacher training. (It is referred as an extended, self and group-management informal training - APEID -1986).

SLAC is supposed to provide the vital links between what was learnt in the centralised course and the realities of the classroom. The system is geared to serve as a means by which teachers actively participate in their own training and by which they can share their experiences and concerns. It was envisaged that the SLAC cell would sustain its own growth and development.

The evaluation of the SLAC programme indicates that its success or in the words of the SLAC, "high performance", is related to:

* Leadership - The leader's (headmaster) ability to facilitate discussion sessions in a lively and informal manner contributes to the positive attitudes held by the teachers to the SLAC. These positive attitudes are related to the high performance of the SLAC. (Proded, n.d. 13).

* Support - The evaluation data suggest that the involvement of the supervisors influences the perfomance of the SLAC. The involvement of supervisors in terms of regular monitoring and follow-up discussion with SLAC leaders seem to be related to high performance of the SLAC. In contrast, low performance of SLAC is related to inconsistent monitoring (Proded, n.d. 13).

The evaluation also attempted to relate the performance of the SLACs to childrens' cognitive achievement. It seems that test scores of students from the high performing and low performing SLAC's do not differ significantly (Proded, n.d. 13).

The third example of SBIT within individual schoolS is in Papua New Guinea, where headmasters and senior teachers are expected to conduct in-service courses for teachers (APEID, 1984). These SBIT courses are organised with the expectation that teachers will be actively involved both as trainee and as trainers. This SBIT has three main objectives in mind:

a) providing opportunities for teachers to share ideas and acquire new knowledge;

b) facilitating discussions among teachers;

c) providing teachers with opportunities to discover innovative solutions to old problems.

There was also an attempt in Papua New Guinea to encourage teachers in 30 schools to plan the in-service course, so as to make them more relevant to the needs of the teachers.

The last example of teacher participation in the initiation and organization of SBIT is the in-service component of the Cianjur project on professional support and supervision. The project's basic assumption is that qualitative improvement in elementary schools can be achieved if strong support can be given to teachers from a variety of sources: the administrators, supervisors, teacher courses, headmasters, other teachers and the community. At the classroom level, teachers can draw support from other teachers, headmasters, and even the pupils themselves. Thus the project is working towards the development of an integrated system of teachers' clubs, teachers' centres and headmasters' clubs with the professional support from the local supervisors and administrators.

The headmasters are encouraged to organise and supervise professional work in their schools. Discussions on professional matters are held in monthly meetings, for the headmasters, and on a weekly basis, for the teachers. These meetings are organized on a cluster basis with teachers given the responsibility of organizing their weekly meetings. Hence, there is a strong emphasis on teacher participation in the planning and the organization of these meetings.

There have now been several evaluations of the Cianjur project. Some of the observations made were that:

* these meetings encourage closer and frequent contacts between the teachers;

* greater enthusiasm for the different aspects of the project is shown by teachers, heads and supervisers;

* the participatory planning has resulted in a high degree of participation from local professionals in the activities of the project;

* the project has influenced teacher behaviour and has improved teaching effectiveness;

* the project shows that with strong local leadership from both the headmasters and the supervisors, a number of important profession decisions can be taken at the local level (Apeid, 1982; Gardner, et al, 1990).

Cluster School Arrangement

Most school-based in-service training tends to be based on a cluster arrangement, such as those provided by Sri Lanka's school clusters, the school complexes of India, Centre Schools of Pakistan and the Resource Centre Schools of Nepal. However, as this review will only focus on those cluster-based in-service training which the teachers and headmasters have initiated by themselves and have participated in the running of them, projects will be reviewed accordingly. Some aspects of the school-based training in the Cianjur project are organized through a grouping of schools. Selected teachers are given the responsibility to plan, organize and lead the discussions attended by teachers from the cluster schools.

In Papua New Guinea (APEID, 1986), the Educational Resource Centres have been established to co-ordinate and facilitate the SBIT for the local district. Usually the SBIT courses are held within a sub-zone of groups of 7 schools.

One of the main components of the Self-Help Action Plan for Education (SHAPE) project in Zambia (SHAPE, 1987) is the SBIT programme. Teachers are appointed as resource teachers in different subject areas with the responsibility of organizing seminars and workshops both at the school level and at the zone (a school cluster) level. The rationale for SBIT in Zambia is that it would help broaden the content and more importantly, the relevance of learning. By getting teachers to participate in improving themselves professionally, it is hoped that they will be able to take a greater role in educational development and be more prepared for self-reliance.

Professional Development

In India, primary school teachers within a school complex (a grouping or clustering of primary schools around a local middle or high school) meet at the nucleus school to discuss common problems, exchange experiences and demonstrate the use of innovative practices and new techniques of teaching (APEID, 1982).

Two examples of participatory innovations related to professional development can be found in Korea. They are:

a) The activities organized by the teachers in their own school through the Teachers' Interest Club/Society found in Korea. These interest clubs organize a variety of activities/programmes for self-improvement.

b) A cluster-based set of activities organized by the Education Promotion Association of Primary Schools (APEID, 1982, pp 90). Most of the primary school teachers in Korea are members of this association. Teachers from schools in the same locale organise, through the above association, meetings to share ideas, information and resources. Other than professional development, the teachers use this association to foster closer contact and co-operation amongst themselves.

4.3.2 Research on Teaching

A recent type of teacher participatory school-based activity is research. It would appear that in spite of the increasing interest and active participation of teachers in research in their school, there are only a few such activities or innovations to be found in the primary schools of developing nations.

Research found in schools, for clarity, can be divided into two types: action-research and school-based research. Action research refers to a self-evaluative process where teachers objectively reflect on their own practice usually in great depth. School-based research refers to research carried out on different aspects of the school, such as the educational needs of the community, by its teachers and school administrators.

Action research, defined as a process by which teachers take deliberate steps to systematically reflect on their actions in the teaching-learning process to improve their effectiveness, is seldom found in the primary schools of the developing countries.

There is, however increasing interest in the school-based research for primary schools. Korea was one of the earlier countries to encourage teacher participation in research. The Ministry of Education started a 'school-in-action' research programme in relation to introduction of SBIT in the Korean primary schools (APEID, 1982, p 90). In this programme, headmasters were given the role to help teachers conduct educational research in their classroom, especially action research.

In recent years, both the Singapore and Hong Kong educational authorities have begun to introduce school-based research as part of the educational policy. There are now more than 30 school-based research projects carried out by teachers in the primary schools in Singapore (Fok, 1987). Some of these are:

i) Creativity in Curriculum Implementation;

ii) Co-operative Efforts to Improve Specific Programmes;

iii) Happy and Effective Learning in Mathematics; and,

iv) Remedial Reading.

Teacher participation in school-based research in Singapore has become a reality as confirmed by the responses from the teachers to the activities organized by the Singapore Educational Association.

4.3.3 Policy

In the Zambian SHAPE project described earlier, the teachers are encouraged to plan, manage and implement the programme with the support of headteachers, inspectors and administrators. The project enables teachers to take responsibility in educational development at the different levels of the educational structure (SHAPE, nd). Recent evaluation has shown that the project has generally created a sense of self-reliance and commitment among the teachers. They have also gained a large measure of self-confidence through being involved in the participatory activities organised through SHAPE.

4.3.4 Curriculum Development

The active participation of teachers in the different aspects of the curriculum development process is becoming increasingly common in the developing countries, particularly with the movement towards decentralization of curriculum to facilitate relevancy. There are now a variety of ways in which teachers can participate in the different aspects of the curriculum development process. These are mainly related to the extent to which curriculum control is decentralised in the country.

Although overall there is an increase in teacher participation in the curriculum development process, the main type of participation is in the area of material production. Teacher participation in curriculum planning and design is relatively little. Projects where teachers do participate in the planning and designing of curriculum are those which are community- or local-based.

Examples of such projects are the 'First Cycle of Primary Education Project' in Nicaragua and the 'Development of a Flexible Curriculum Project' in Honduras (Calvo, 1989). The Nicaraguan project attempts to develop an alternative system which does not follow the normal yearly divisions into grades, somewhat similar to the multi-grade system. It involves the teachers directly in the process of curriculum design and development.

The Honduras project which was discussed earlier involved the Agua Blanca Sur community, where the community together with the teachers and pupils plan and design specific areas of the school curriculum which meets the needs of the community, such as nutrition, children/parent and community/school relationships. In this project, teachers, parents and pupils form working groups to carry out the different aspects of the curriculum development process related to the local component of the curriculum. It seems that overall attitudes shown by pupils, parents and teachers were positive towards the curriculum development roles that they were required to assume.

In a system where the national curriculum is solely decided by central authority, teacher participation in different aspects of the curriculum development process may be organised through establishing panels to develop materials for specific subjects and workshops. These subject panels and workshops are now found in most of the national curriculum development centres. One example of substantive teacher participation is the number of panels or workshops organised by the Curriculum Development Centres in Lesotho, Zimbabe and Malawi (Dube,nd). In Zimbabwe, most of the materials for a the new subject called 'Environmental and Agricultural Science' were developed through an annual writing workshop consisting of 40-50 people.

4.4 The Community Involvement

In this review of participatory, school-based and community-based innovations, community involvement in the formal primary school system refers to the participation, either as individuals or as a group, of different members of the community whether or not they have children in the schools. Their involvement is not specifically aimed at assisting directly in the education of their own child, but generally towards the improvement of educational provision in the community.

Community participation has been seen in a number of developing countries as a crucial aspect of both the quantitative and qualitative improvement of education. This view is widespread throughout all regions of the developing world. Countries such as, Peru, Nepal, Indonesia and Kenya have made community participation an integral part of the educational policy and structure.

In terms of projects, the last 15 years have seen a number of collaborative work in this area of community involvement in education. To name a few, the Joint Innovative Project (JIP) organised by the APEID/UNESCO Bangkok has as one of its main objectives the study of the effects of parental and community participation on education. The IMPACT projects funded by IDRC and to some extent by US/AID, in some of its locations, also looked at the effects of community participation on basic education. The few Van Leer funded projects at the primary school level also have as their main concerns the community involvement in education. In Africa, the UNESCO/UNDP projects of community schools have looked at the provision of basic education in relation to community participation.

Although this review is mainly concerned with the projects or innovations which have specifically tried through research and development to evolve certain approaches in community participation in the different areas identified earlier, namely, pedagogy, curriculum, policy and resource, mention will be made of national programmes whenever they include some things which enhance the sustainability of the community/school linkages.

Participation in Pedagogy

In the pedagogy area, the literature shows that there are a number of some interesting ways the members of the community can be involved directly in improving the teaching-learning process of the children both at home as well as in the school.

Awareness

Awareness is seen as the initial stage on the community involvement in education. This stage is concerned with raising the consciousness of the community in general regarding their roles and contribution to the education of their young children. Obviously there is a close relationship between the awareness stage for the community and the awareness stage discussed for the parents. In addition to raising the consciousness of the community regarding their roles and responsibilities for the provision of education, this stage can also be seen as the mobilisation stage - to mobilise or motivate the community to actively participate in the provision of education and in raising the quality of education in their community.

The Nepali Multi-media project mentioned earlier is a very good example of the kind of activities that can be organised to raise the awareness of the community regarding the value of education and the ways in which the community can actively contribute to it.

The Sabah Multiple Class Project (Daud and Raman, 1989) also has a community participation component. The main objective of this component is to create a closer relationship between the local community and teachers by developing appropriate linking strategies. One of these strategies is the use of existing local organisations or structures such as, the PTA, Village Council, and Youth Association, to promote the linkages. The rationale for the close relationship is to bring about an awareness that the community-school relationship can help in the development of the child.

Teacher Training

There are some innovations where the community has participated in some aspects of teacher training either towards the improvement of general skills or in developing skills specific to the needs of the community. In Nepal's SETI, (Dove) community leaders were trained together with the teachers in the different teaching methods and techniques to improve the quality so that they can effectively supervise the teachers under training. The training that these community leaders had was able to help them teach or impart specific skills to teachers related to rural and community development particularly in health and agricultural education.

Teaching

A large number of projects and programmes have used members of the community to participate in the pedagogical area. The community participation may be related to the teaching of two aspects of the school curriculum. The first aspect relates to the teaching of certain areas of the curriculum on which teachers may not have the knowledge or expertise. In most of the decentralized and self-help oriented primary school systems where local and production curriculum is high, such community participation is often utilised. Although there has been much effort to involve members of the community in the teaching process, the implementation of this concept is less than hoped for.

For example, in the rural areas of Kenya (Kibaru, 1987), the community participated in the teaching of practical skills related to agriculture and crafts, and in the Cameroon (Bude, 1985) there is some evidence that a number of schools have tried to use community members to teach basket-making, weaving and carpentry.

Similarly, in the JIP in Thailand, members of the community participated as teaching resources not in the general curriculum but in the local component of the curriculum, such as art and crafts. These members of the community participated in the teaching process by giving talks and demonstrations in art and crafts work (APEID, 1986).

Another example of this type of community participation is found in the Bumumbu project, Sierra Loene (UNESCO, 1987). Community members with skills were used to teach crafts, arts and cultural matters. What is interesting in this project, selected people were trained at the local college which formed part of the Bumumbu project to improve their teaching competence.

The second type of participation in the teaching process is the involvement of members of the community in helping the teachers with the teaching of the core aspects of the school curriculum, that is, the basic literacy and numerical skills. Two examples of this type of teaching participation come from the Philippines. One component of the Philippines JIP's Parental Learner Support System (PLSS) experimented on the use of members of the community to teach different aspects of the curriculum. As described in the previous section, the JIP in the Philippines used parents to help in the classroom teaching as teacher helpers through the Classroom Teacher-Parent Associations. The IMPACT project had also attempted to get parents and other interested members of the community to work as teacher aides. Unfortunately, the response to this teacher aide system was not very favourable.

The Learning Monitor (Talleres) project in Chile is another approach used to help in the teaching of under-achievers found in rural/disadvantaged areas. Selected community members are trained as monitors or talleres with two objectives. First, they act as group leaders or monitors to groups of under-achievers and secondly they themselves work as a group in workshop sessions to develop teaching/learning materials for these pupils. Evaluation of this talleres system showed that:

* close relationships were established between children and tutors;

* the monitors were able to help children improve in their school work;

* rural and disadvantaged communities were able to show that they could solve their problems (for example, by developing a unique educational model and training people for it); and,

* integration of family/community in the teaching-learning process was easily accomplished.

The Mexician project described in the section of parental participation, the 'Learning of the Written Language Project' where parents act as calloborators to the teachers in the teaching participation. As mentioned earlier, some parents found this role meaningful and were very responsive to it.

Policy

The literature also shows that in some innovations, the community can be involved in decision-making in relation both to policy and management of the school, through different types of committees, such as the Parent-Teacher Associations, the School Management Committees, and School Development Societies.

In Bolivia (Avalos, 1986), for example, there exists well established organisations such as neighbourhood committees, mother clubs, youth clubs and parent-teacher associations. The community is able to participate in the schools' affairs through these organizations. In this way, all members of the community can develop a common concern for the schools.

With the introduction of the New Elementary School Programme in Nepal, the School Management Committees have been assigned some new roles which relate to the running of the schools in the community. For example, the School Management Committees are able to recommend the hiring and firing of teachers and the selection of the headmasters from a list of prospective teachers provided by the district education office. However, the main roles of the SMCs now are to manage the school finances, maintain and improve school facilities. As to bringing the SMCs closer to the community, membership should consist of at least 3 parents from the immediate community.

Similarly, in certain regions of Kenya (Kibaru, 1987), the PTA and the School Committee are involved in the management of the schools. This can even include the responsibility for the teachers' salary.

The Educational Councils found in villages of Vietnam, which is represented by members of the community operating in different capacities, meet annually to plan education for each year, discuss problems both with regards to the provision of education in the village as well increasing participation of the community in educational work (APEID, 1984).

In the Bumumbu Project (UNESCO 1987) and in Sierra Leone in general, community participation educational policy is encouraged from the national level downwards. The membership of the paramount chiefs in the National Advisory Committee is to provide some representatives from the community who have expertise in land matters, and who can encourage self-help and co-operation from the communities at large. At the district or village level, the community is represented by membership of the local craftsmen, women and civic leaders in the Community Development Councils (CDC). Sub-committees dealing with education can be chaired by local community leaders. Hence through this system, the community can have substantive input to policy.

The link between the community and policy is more explicit in the agriculture component of the school curriculum in Papua New Guinea. The agricultural programme in the Community schools is managed by the community. Each school or community is left to choose the focus of the programmes appropriate to the location and to the availability of resources. The School Management Board and parents are brought into decision-making regarding this programme. The participation of the community in this decision-making process has developed in the communities a greater sense of responsibility and respect for the school and the teachers.

A less formal form of community participation in policy decision-making can be found in the Sri Lanka's JIP project (Perera and Gkanayake, 1988). It uses the monthly 'Principals workshops' to facilitate this type of participation. At each meeting, Community participation is an integral part of the agenda. Members of the community can be present at these meetings. These discussions ranged from parent-teacher meetings, meetings of parents, discussions of community problems, participation in practical activities, to the development of concept of self-reliance in the school and community and so on. After each meeting, principals usually spend time with helping with the temple, thus encouraging a healthy relationship with the community.

Another feature of the project is the establishment of pre-schools by the community, the PTA, and NGOs' religious bodies with the encouragement and support of the principals. Village councils, committees (Zilla Parishads, Village Panchayats) were involved in the setting up of the pre-school project and they actively participated not only in the construction but also in the decision-making related to the establishment and running of the pre-school. Although the pre-school is officially part of the school, the efforts to develop it through the collective efforts of the different sectors of the community have developed a strong sense of ownership and since these pre-schools were initiated by the school, the school-community relationship was enhanced.

Resource

This area of participatory activities is not directly concerned with the main focus of this review. Much of the literature and issue regarding the community financing of education will be discussed in another session. As such, the following will only be a very brief description of this aspect of the community participation found in a number of projects reviewed for the other areas of focus.

The provision of resources is perhaps the most common of the community participatory activities. In a large number of projects and programmes reviewed, community participation in this area has been the contribution of financial, material and phyical resources for the provision of education through various types of organisations such as PTA, Village Councils, School Management Committees. These resources are used, for example, to build and maintain school buildings, construct roads to the school, develop gardens, pay teachers, etc.

The main types of resources contributed by the community are financial and labour. In the survey conducted by Bude (1985) of schools in the anglophone Cameroon, the contributions of finance and labour are about similar in frequency. The high frequency of contributions of financial assistance to the schools is interesting. In spite of most of the projects and programmes reviewed being related to the rural and disadvantaged communities, community participation in the form of monetary contribution is perhaps the most frequent. For example, in most of the countries such as, Nepal, China, Philippines, Thailand and Malaysia, participating in the JIP project where community involvement is one of the main components of the study, financial contributions make up the most frequent form of contribution given by the community to the school (APEID,1986). To illustrate this point further, the Sri Lanka JIP (Perera and Gkanayake, 1986) project schools, though in a rural area, were able to collect sufficient funds not only to build a pre-school but to maintain it through paying the salary of the teacher.

In the majority of projects and programmes reviewed, most of the money contributed by the community goes towards the construction and maintenance of the physical plant of the school such as in Sudan, China (Gansu Province), Bolivia, Vietnam, Kenya and Nepal. In some countries, these financial contributions are also used to pay some of the salaries of teachers (Kenya). Aso, these contributions are used to purchase teaching materials and aids (Philippines, Kenya) and to assist the poor children to go to school through paying of their fees, through buying their stationery, textbooks and school uniforms (Sudan, Kenya).

One interesting example of this community participation is Vietnam where this type of activity is voluntary in the villages. The main contribution of the community is the construction and maintenance of school buildings. Usually, the community provides the finance and labour whilst the state provides the building materials (APEID, 1894).

Curriculum

The curriculum change process may be divided into four main stages, planning, development, implementation and evaluation. The literature search has revealed that all these four stages are represented by a number of interesting innovations in which the participation of the community forms one of the main activities, if not the main activity.

Curriculum Planning

An example of an innovative project which attempted to encourage full community participation in the different aspects of the curriculum planning stage is the Colombian/Netherlands bilateral project to develop an educational model appropriate for the Indian population in the National Territories, an area around the Amazon and the Orinico rivers (Otheten, et al.,1984).

The project views education as a social process, which is achieved through community participation at the different stages of the educational development process. The community participation was used in collecting, processing, analysis and interpretation of information for curriculum decision-making. The community participation was also involved in indicating needs and priorities, so that the needs and priorities would be identified from the communities' own perspectives. These processes were carried out through local workshops organized by the community itself with the help of the project staff.

The evaluation of the project indicated that the Indians have become more independent and thus less dependent on the Church. The Indians had formed a sense of ownership over the project and had began to be more aware of their 'real position within the Colombia society and the Colombian policy in particular' (Oltheten, et al, 1984. pp 46). The project was halted after this evaluation.

Curriculum Development

There seem to be more participatory community-based innovations related to the curriculum development stage than to the planning stage. There are two levels at which the community can participate in the development stage. The first one is the conceptual level where the community participation involves the contribution to the curriculum design and the development of a curriculum framework. The second level of community participation involves the development of curricular materials, both printed and audio-visual materials.

Although the Colombian project described earlier had community participation in both types of curriculum activities, it is the best example of the first level, the involvement of the community in development of the curriculum framework. The project was organized such that the community determined the curriculum form and content of the curriculum through a series of workshops with the help of the project staff (Oltheten, op cit, pp 45).

In the Bumumbu project, Sierra Leone(UNESCO, 1987) which had developed a primary school curriculum for rural areas, members of community served as resource persons in the curriculum areas for crafts, arts, rural technolgy and cultural matters. They were involved in both the development and evaluation stages.

Another example is a project called 'First reading and writing skills for equal opportunities for all' in Argentina which developed teaching strategies and materials for the teaching of reading and writing in the 1st, 2nd, and 3rd grades. These strategies and materials were developed jointly by teachers, parents and supervisors.

5.0 Consequences

While there are a tremendous number of innovations in the areas of participatory, community-based pre-school and primary education, most have not been comprehensively and thoroughly evaluated, even at the level of the achievement of the desired outcomes. While there is evidence in some cases that such innovations can help programs respond to differences in local needs and contexts, motivate and mobilize those who are most directly responsible for encouraging learning, foster social organization and co-operation, and spread costs, there is much less evidence concerning their long-term outcomes, both intended and unintended, particularly in regard to their sustainability and replicability. To be fair, the quantitative or qualitative measurement of, for example, the effects of participatory activities on raising the quality of education, is not an easy task. Nevertheless, it is necessary to know much more concerning what these innovations are best able, and unable to achieve, what aspects are most enduring, and what circumstances make both their immediate and their ultimate impact more significant.

Most of the literature which looks objectively at the implementation of these participatory activities has presented a rather mixed picture, showing a wide range of possible consequences. The positive ones include the decrease in isolation of the school from the community, the sense of ownership inculcated in the community, the understanding cultivated between parents and teachers, and the sharing of common goals. Negative consequences include the inherent conflict of expectation between the school and the community, uneven involvement among community members, and the unequal distribution of benefits in favour of children of better educated families. One reason for these outcomes is that participation implies interaction. When different people begin to interact in contexts where traditional roles and responsibilities no longer apply, the consequences of this interaction will be very complex.

It is only through careful examination and analysis of the processes and outcomes of these innovations that their most useful, feasible, sustainable, and replicable features can be identified and reinforced. To the extent that participatory, community and school-based approaches to educational change must, under current economic and political circumstances, assume a larger role in development, research and experimentation with these approaches must be given a high priority by governments, NGOs, and donor agencies alike.

6.0 Conditions for Sustainability and Replicability

The following are some factors that have been identified as contributing to the success of the participatory school-based innovations and indirectly to the their sustainability in the schools. These factors were identified from the review of the projects and innovations just undertaken and from analysis of the curriculum processes made elsewhere.

Leadership - There need to be strong leadership at the school level. This leadership obviously comes from the head master and his crucial contribution to the implementation of any innovation is well researched and documented. In relation to the introduction of participatory, school-based and community-based innovations, the leadership provided by the headmaster is a necessary condition for success.

A number of the projects reviewed such as the Cianjur Project and the SHAPE project have reinforced the importance of the headmaster, especially in the implementation of these participatory activities, particularly in terms of the headmaster as the crucial factor in the sustaining the innovation in the school. Most recent evaluation of SHAPE project indicates that the 'community's positive response to the project and their level of participation depends on a few key persons. The most important being the headmaster. Active, qualified and trained headmasters tend to provide for strong leadership. Best SHAPE programmes at the school level are related to this strong leadership' (LUBASI, 1989).

There are three conditions for strong leadership suggested by the SHAPE project: active, qualified, and trained. These need to be considered carefully in trying to implement any innovations.

Firstly there is the need to provide clear definition of the headmasters' role and functions, especially with regard to the participatory school-based activities. There is a tendency to overlook this. Secondly, training needs to be given to the headmasters. This is one area that has seldom been seriously considered.

The training does not necessarily have to be formalized. The Sri Lanka JIP's monthly 'Principals Workshop' is one way headmasters can be provided with some form of training in a meaningful manner.

Support - The headmaster and all involved in the innovative activities will need constant and consistent support. The support has to be both vertical and horizontal. Vertical support refers to the support from the superiors up the administrative hierarchy. It is a system where the teachers are positively supported by the headmasters and the headmasters by the supervisors and so on. Horizontal support refers to the support provided by colleagues to each other. The models of support developed by Cianjur and the Philippines School Learning Action Cells are examples of the inter-woven network of support and supervision which can form the basis for the introduction of participatory school-based activities.

Multiple Intervention - This is related in a way to the support factor. Multiple intervention refers to the introduction of a concerted number of innovations which support each other. The evaluation of the projects for primary education - Nepal, the SETI, PEP and IIP - indicate that improvement of student learning can only come about with changing the culture of the school. This is only possible if there is a multiple intervention programme, which includes teacher training, strong and continued support, availability of teaching/learning materials and community and parental involvement. This multiple intervention approach is also reflected in the Cianjur project where the introduction of the Active Learning Curriculum is being carried out via the Support and Supervision project.

Innovation in education implies changes in values, beliefs, expectations and practices. The participatory approach as reflected in the activities reviewed earlier requires drastic changes in these things in all the people involved. The use of someone who is not a teacher by profession in the classroom would require changes in values, beliefs, expectation and practice of both the teacher and the 'non-teacher's. These changes can come about through a multiple intervention approach where the participatory innovation is integrated with teacher training, and with material production.

Decision-making in the sustainability of participatory activities is related as shown by Bude (1985) to relate to the level - diffuse - collective, immediate support vertical linkages.

Clear Routine/ Role Definition - For the project to be successful, people participating in it, particularly the teachers and the community members, need to know as clearly as possible what they are supposed to do, and when they are to do it. Clear definition of the roles of the participants needs to be made explicit and to be constantly reminded. Similarly, the routine required and the time commitment need to be made explicit. The time commitment is very crucial in the parental or community participatory activities.

Incentives -Some forms of incentive may provide the impetus for implementing an innovation. However, the experience of the IMPACT and Pamong projects suggests that monetary incentives such as honoraria may be counterproductive and undesirable. These projects had provided some honoraria at the project stage to those who had participated, but when the project funding ended, the projects faced tremendous problems in sustaining the participation. The incentives may have to be in terms of recognition, publicity, and professional advancement.

Feasibility - One of the main factors influencing the implementation of an innovation is its feasibility, at least the perception of it being feasible. Teachers and the community have to see the innovation as being feasible within their context. This perception of feasibility contributes to a sense of security on the part of the teachers and community members.

Sense of Ownership - In a number of projects reviewed, the sense created of ownership through being involved actively and directly in the educational process has been seen as a way of maintaining and even increasing participation. This sense of ownership is enhanced through providing those involved the opportunity to participate in the decision-making process straight from the beginning of the project. In most of the projects which have had a notable increase in participation, the researchers were to relate this to the sense of ownership felt by the community over the projects or innovations.

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USING DISTANCE EDUCATION TO EXTEND AND IMPROVE TEACHING IN DEVELOPING COUNTRIES

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Using Distance Education to Extend and Improve Teaching in Developing Countries

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The draft Charter of the World Conference on Education for All (WCEFA) notes that 100 million children do not attend school. Moreover, other millions of children and adults enter, but do not complete, basic education programs. Many who do complete them still lack fundamental knowledge and skills. To address these problems of access and quality, the WCEFA Framework for Action calls for a broadening of the scope of basic education "to cover a wider range of delivery systems and target groups" and the utilization of "modern and traditional information media and technologies...to support basic education activities."

Programs of distance education (DE), which involve a mix of modern and conventional technologies, are now being used in scores of countries to extend and improve basic education. There is growing evidence that under the right circumstances distance education programs can provide cost-effective means to both increasing access to basic education and improving its quality. This exploration of distance education as a means to increased access and quality reviews the following ten questions:

1. What kinds of distance education programs are being successfully used in basic education and how do they work?
2. When are such programs of distance education called for?
3. What are the particular merits of such DE programs?
4. Where are DE programs currently being implemented?
5. What evidence is there that DE programs are effective; cost-effective?
6. What are the preconditions for DE program success?
7. What are the main problems and constraints in the implementation of DE programs, and how have they been overcome?
8. What about cross-national transfer and collaboration?
9. To what extent are distance education programs sustainable over time?
10. What are some of the waves of the future in distance progams?

1. What kind of distance education programs are being used successfully in basic education and how do they work?

"Distance education" is a term which has only entered into educational jargon in the past 20 years. It has been defined by Perraton (1986) as "an educational process in which a significant proportion of the teaching is conducted by someone removed in space and time from the learner." In addition, distance education, as it has come to be used in relation to basic education, has a strong active learning element, something that sets it apart from more traditional programs of educational broadcasting and correspondence study (Friend, 1989). Instructional design techniques are used to create interactive learning situations, requiring the learners to respond to cues, give feedback, answer questions, work in groups, and seek for solutions to problems, and generally stay alert and engaged. Distance education programs for basic education, at least those reviewed here, are not meant to be "teacher-proof," but are instead meant to extend and strengthen the position of the teacher: **extend** by providing quality lessons to more students than before, and **strengthen** by providing opportunities for in-service training which lead to higher levels of competence and professional status. This review covers three kinds of programs which have been successful in these ways:

> Programs of interactive radio, used in a classroom by a regular teacher in order to enhance the quality of instruction;
>
> Programs of educational radio (school or community-based) as outreach for those who cannot attend regular schools, managed by volunteer teachers or local facilitators;
>
> Programs of in-service training for upgrading teacher credentials and competence.

In-school interactive radio programs generally involve daily radio lessons of 20-30 minutes each, followed by a 15-30 minute teacher-led activity. The radio program is interactive in that it prompts a student response every few seconds -- to answer questions, to do spoken or written exercises, and to use simple materials. Supplementary activities for the student to complete at home are likely to be provided through printed student worksheets. Typically, a school making use of instructional radio is provided with one battery-operated radio, which is moved from classroom to classroom. Teacher preparation associated with the use of interactive radio involves training sessions that may last few hours to one or two days.[1]

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[1] Interactive radio of the kind reviewed here is obviously only one form of radio education used at the primary school level. Other reviewers have noted that almost every country in the developing world uses the radio in some way in the delivery of primary education (Hawkridge and Robinson, 1982). So far, there is no comprehensive review of this field and the documentation from many countries is extremely sketchy. Anzalone (1989) speculates that most of the programs not in the interactive radio mode give radio a minor role and use the "talking teacher" format or deliver an oral presentation of information written for textbooks.

Radio programs for out-of-school learners typically involve the use of radio broadcasts with groups of learners (youth and adults) who have not been able to attend conventional schools. Sessions involve one or more hours-worth of listening (and sometimes responding) to the radio, followed by group work (discussions, completing worksheets, etc.) led by paraprofessionals. Groups gather at homes, community centers or even school buildings (evening hours). They cover basic education curricula, including those needed to obtain a primary school certificate or to master basic literacy, numeracy and livelihood skills. Facilitators need not have a strong background in pedagogy or school subjects. They are trained in group organization and management skills, and in how to address learning difficulties of participants. Their training typically takes a few days only. "Popular education" programs (widely diffused in Latin America), using radio to mobilize the participation of disadvantaged groups in political and community action movements, also have basic education aspects to them, but they are beyond the scope of this review.

In-service teacher education programs are generally organized to give unqualified or untrained teachers the opportunity to earn a teaching certificate and/or to increase their professional knowledge and skills. Some programs are meant for new recruits to the profession, who, after a brief orientation, are given structured on-the-job training, mostly in teaching skills; others are meant for untrained teachers who have already taught for several years, providing better subject matter mastery and knowledge of recent developments in curriculum and instructional methods. In the typical program participants learn through the use of self-instructional materials, often supplemented by radio/TV broadcasts or audio/video cassettes, and supported by occasional face-to-face tutorials or practice sessions, often during school vacations. Some programs require the submission of written assignments; others, supervised practice lessons. Those which lead to teaching certificates or degrees require the accumulation of credits through the passing of course examinations over a period of two to five years.

2. When are distance education programs called for?

Distance education programs cannot deal with the full range of educational problems nor are they appropriate in all educational systems. They do, however, seem to be particularly suited to educational systems where:

- there is a shortage of qualified teachers (in general or in specific subject areas);
- there are gross disparities in the quality of teaching across various locations;
- geographic, cultural or other kinds of barriers have hampered certain groups' access to adequate education or training;
- schools are poorly equipped with instructional materials;
- a significant number of youth have dropped out of school and are now seeking alternative means of obtaining a primary school certificate;
- large groups of teachers need to be trained or retrained in a short time;
- tight budgets constrain the further dissemination of conventional schools and training colleges;
- a basic communication and transportation infrastructure exists.

Where countries are in a race with time to achieve or approach universal access to basic education, they are inevitably forced to recruit untrained teachers. Such teachers may know scarcely more than the pupils they teach, especially in difficult subjects such as math and science; their teaching styles simply mirror the uninspired ways in which they were taught. Even trained teachers may resort to little more than dull and unproductive lectures and recitations. Very remote areas may have no teachers at all, or if any, those with below minimum qualifications. The poor quality of instruction under such circumstances may cause parents and children to question the value of schooling and encourage drop-out. In-service training would be helpful but short courses have had a marginal effect and training colleges are, because of distance and cost, often out of reach. The government could build more training colleges but they are expensive and impractical in areas where few teachers live, are slow in producing graduates, and one increasingly viewed as not that effective anyway. Moreover, taking the teacher away from the village for conventional training leaves a 2-3 year gap which cannot be easily filled and there is no guarantee that the teacher will return once certified. On the other hand, recent improvements in a country's national communication network may have brought clear radio signals to most rural areas, and its government may have allocated much of its broadcast time to development oriented programming. Also mail services may now extend to all parts of the country.

Where such conditions exist, the use of distant education options -- for improving classroom instruction, for outreach to unserved areas or school drop-outs, for training teachers on-the-job -- would seem to merit serious consideration.

3. What are the particular merits of Distance Education?

Distance education programs, those for students as well as those for teachers, appear to offer a number of advantages which are not found in conventional programs. For example, they are capable of bringing the same quality of instruction to all regions of a country, no matter how remote. Whether it is a radio lesson on multiplying fractions for fourth graders or a self-instructional module on classroom organization for teachers, there is no distinction between the city-dwellers and villagers in the quality of lesson they receive. Secondly, programs require participants to be active learners, either in responding to radio cues (pupil) or completing correspondence assignments (teacher), thus keeping them mentally engaged. Thirdly, distance education systems do not require the teacher to be removed from the classroom for long periods of training: In- and out-of-school radio programs can be managed by teachers/facilitators after only a few hours of training; distance education teacher training allows the teacher to maintain his/her regular teaching routine. Fourthly, unlike other systems using educational technology, the above distance education systems have very modest equipment demands: in most cases all that is required is a portable radio (or in the case of some teacher education programs a cassette recorder) and some printed modules or exercise sheets. These days these kinds of materials and equipment are either already available or can be acquired easily, even in remote areas. Finally, DE programs provide policy-makers with a means of avoiding the trade-off between quantity and quality, since in many applications (outreach to remote areas; the training of teachers) both can be increased at the same time.

The special benefits provided by DE teacher education courses have been listed by Coldevin (1988) as follows:

- home-based study means attaining professional certification or academic upgrading without interrupting earnings--a significant factor when many rural teachers also farm;

- in-service training obviates the problem of finding substitute teachers who may have poorer qualifications than the teachers they are replacing;

- in-situ training reduces the possibility of urban migration that may result when college-based trainees do not want to return to their rural posts;

- larger numbers of teacher can be served at one time and at lower costs than with campus-based instruction.

4. How widespread is the use of distance education in developing countries?

Interactive Radio

A flood of recent reviews and studies (Anzalone, 1989; Tilson, 1988; Block, 1985; Searle, 1985, Lockheed and Hanushek, 1987; Friend, Searle and Suppes, 1980; Friend, 1985; Oxford, et al., 1986; Christensen, 1985; Friend and Kemmerer, 1985; Galda, 1985; Friend, Galda and Searle (1979); Snag-jan, 1982) have described the dissemination and features of in-school interactive radio projects in ten developing countries. (These are all projects which are part of the radio education network supported by USAID. There have been projects under other sponsors which have used radio in an interactive manner, e.g., the Schools Broadcasting Program of Swaziland, and no doubt many others, but studies and detailed descriptions of them are hard to find and they are not reviewed here.) Six of the above projects, including the pioneer effort in Nicaragua, have been mounted in Latin America (Nicaragua, Honduras, Bolivia, Costa Rica, Ecuador and Belize); two in Asia (Thailand and Papua New Guinea) and two in Africa (Kenya and Lesotho). The spread of these projects was slow in the beginning, with only one project (the Nicaraguan one) being mounted in the 1970's. During the first half of the 1980's two more were initiated and during 1985-89 a fresh burst of activity saw the initiation of seven. Four of these projects have focussed just on mathematics learning, three just on language learning, one just on science, and two on a combination of subjects (math and language or health).

Radio for Out-of-school Learners

There are two kinds of programs which we have considered in this category, those which lead to a primary school diploma, and those which provide basic education in the form of literacy and numeracy (often in combination with training in livelihood skills and consciousness raising activities). The first could be considered formal education delivered through alternative or unconventional means; the second nonformal education. Most of the examples of these kinds of programs come from Latin America. An OAS survey in the early 1980's identified 15 radio education projects oriented towards the formal primary curriculum and 32 for the nonformal education of adults (OAS, 1982). Details about these project are hard to find since project documentation and studies have not been widely disseminated (at least in English). Programs of the first type for which there is documentation are Radioprimaria (Spain, 1977) and Tarahumara Radio Schools (Jamison and McAnany, 1978), both of Mexico, the Shuar Center radio schools in Ecuador (Mashinguiashi, 1978), Radio Santa Maria (for adult learners) and Radio-Assisted Community Basic Education (RADECO) (for children) both of the Dominican Republic (White, 1977; Eshgh et al, 1988), and the Malawi Correspondence College (Mkandawire and Jere, 1988).

The prime example of the second kind of program is Accion Cultural Popular (ACPO) of Colombia, which was founded by a Catholic priest in 1947 and which now extends to all regions of the country (Bernal, Muhlmann de Masoner and Masoner, 1978). The object of this program is to organize radio programs geared towards basic education as defined by the participants. Virtually all Latin American countries now have similar programs, most of which are linked with the Church in some way, with at least 20 being explicitly modelled on APCO (Chadwick, 1982). It is difficult to tell how many of those have basic education content as we have defined it and how many are geared primarily towards political and social mobilization. A few such programs have also been mounted in Africa (e.g., Zimbabwe's cooperative education campaigns and Ghana's new mass functional literacy program; see Dodds, 1988) and in Asia (e.g., Thailand's nonformal education programs; see NEC, 1989); and Pakistan's Functional Education Project for Rural Areas (FEPRA), operated by its Allama Iqbal Open University.

In-service Teacher Training

By the mid-1980's distance teacher education projects had been established in more than 40 developing countries. Almost half of them (18) are African; the rest are Latin American (11), Asian (8), Middle Eastern (2) and regional (West Indies and South Pacific). Some of have been are extensions of conventional universities, such as that mounted by the Institute of Adult Studies of the University of Nairobi (Kinyanjui, 1974; Coldevin and Naidu, 1989), some by "open universities" such as Allama Iqbal Open University of Pakistan (Abbas, 1987), and some by special government centers or agencies such as the Centro de Educacao Tecnica of Brazil (Oliveira and Orivel, forthcoming) or the Emlalatini Development Centre of Swaziland, (EDC, 1985). Brophy and Dudley (1982) have classified the projects along two axes: **subject coverage** (academic alone, pedagogy alone, limited academic-i.e., not credentials oriented--with pedagogy, and complete academic with pedagogy); and **media mix** (correspondence alone, correspondence and media, correspondence and face-to-face, and correspondence, face-to-face, and media). Fully 50% of all projects they reviewed (50) were "complete academic with pedagogy" and 50% used "correspondence, face-to-face and media." About 30% were an intersection of the two. Of the 28 projects for which start-up dates are available, four were initiated in the 1960's, 14 in the 1970's and 10 in the 1980's.

5. What evidence is there that DE systems are effective; cost-effective?

Interactive Radio

One of the features of this innovative approach to primary education is the heavy emphasis that has been placed on evaluation research. Evaluation has been used both for program improvement and for documenting program effectiveness. The prime indicator of effectiveness has been academic achievement, results being as follows:

EFFECTIVENESS OF INTERACTIVE RADIO PROJECTS

			RADIO CLASS	CONVENTIONAL CLASS	EFFECT SIZE
NICARAGUA	Grade 1	Math	65	41	1.31[1]
THAILAND	Grade 2	Math			.43[2]
		Rural	58	44	
		Urban	68	63	
BOLIVIA	Grade 2	Math	63	41	.91[3]
HONDURAS	Grade 2	Mental Math	52	34	.80[4]
KENYA	Grade 3	English			.53[5]
		Reading	52	42	
		Listening	55	46	
		Writing	34	25	
		Speaking	38	32	

[1] The effect size on a second evaluation was .88.

[2] Average of grades 1-4.

[3] Average of urban and rural.

[4] Includes new textbooks as well as radio programs; classes with only new textbooks scored 44 with an effect size of .43.

[5] Average of grades 1-3 in all language areas.

(Source: Radio Learning Project)

As can be seen from the above the IRI program classes were consistently and significantly higher than the conventional classes in all countries. Besides that, research and anecdotal evidence show that both students and teachers are positive about the system and that it engages them fully (Block, 1985; Anzalone, 1989). Because students achieve better under the system and or more engaged in their tasks, drop-out and repeating rates have been expected to fall. So far, however, there has been no firm evidence that this has happened (Tilson, 1988). There is, however, evidence from one country, Thailand, that relative achievement is even more positive in rural areas than in urban ones (Friend, Galda and Searle, 1988), something which could eventually effect the not only the drop-out rate but the rate of continuation to secondary school among the less advantaged students. This outcome is consistent with the Thai policy of increasing equality of educational opportunity (NEC, 1989).

Concerning costs, expenditures for interactive radio programs are add-on costs, and although not inconsequential (recurrent costs are typically between $0.25 and $1.00 per student per year), they appear to be lower than the cost of other means of raising achievement to the above levels (Tilson, 1988). In another comparison, when IRI was examined in relation to other interventions (Lockheed and Hanushek, 1988), its impact on achievement was shown to be greater that for either the introduction of textbooks or teacher training.

Radio for Out-of-School Learners

There are far fewer evaluation studies for this kind of application. Programs like APCO have been judged effective because they have lasted for decades, become institutionalized and attained a nation-wide audience. External and internal program evaluations have been conducted but precisely because they have become so widely disseminated, it is virtually impossible to know how many listeners they are reaching and with what kinds of impact. In addition, since they fill a unique purpose, it is difficult to find programs to compare them with for purposes of cost-effectiveness analysis.

Such is easier for the school equivalency programs such as Radio Santa Maria and RADECO. An evaluation of the former project (White, 1977) revealed student achievement levels to be at par or better than those for conventional adult education programs and the "real costs" of the former to be about 60% of the latter. Since many of the costs are absorbed by participating voluntary groups, the actual costs of Radio Santa Maria were even lower in relation to the government sponsored groups. In addition, the program's emphasis on community participation and leadership resulted in much higher rate of attitude and value change in this program compared that in more conventional ones.

Preliminary findings on the RADECO project indicate that children can achieve at levels equivalent to those in regular schools even with just a one hour daily broadcast and some discussions/exercises (Hanssen, Kozlow, and Olsen, 1983). The recurrent costs of such a program, under assumptions that is becomes wide-spread, are about 60% of those for the conventional school (Tilson, 1988). What these encouraging results don't tell us is whether the students are also able to acquire important values and skills as a result of their participation in the program and what their drop-out and promotion rates are. This suggests fruitful topics for future research.

In-service Teacher Training

Up until recently this large set of projects had also been less than extensively evaluated, project managers being obsessed with getting the programs running and producing graduates as soon as possible. Now cost-effectiveness studies are beginning to appear, some admittedly based on retrospective data or that pieced together from various secondary sources. Also, it has often been difficult select appropriate control groups and measures, since in many cases the DE program caters to clients who have no other training options. Of the forty or so projects about which something has been written, the following 15 have been able to produce some hard data on relative (i.e., DE vs. conventional programs') effectiveness and costs. In the table a plus sign indicates the DE project is relatively effective or economical (the latter generally in terms of cost per student per year). "Type" and "media" are explained in the key.

COUNTRY	START UP YEAR	TYPE	MEDIA	EFFECTIVENESS	COSTS	COST-EFFECT	SOURCE
Botswana	1973	PC	CMTP	+-	+	+-	Taylor, 1983
Kenya	1967	PC	CMT	+	+	+	Kinyanjui, 1974 Hawkridge and al, 1982
Lesotho	1976	PC	CTP	+-	=	-	Taylor, 1983
Malawi	1965	PC	CMT	-	+-	-	Mkandawire and Jere, '88
Nigeria	1980	PC	CT	+	n/a	n/a	Tseja, 1989; Agboola and Kayode, 1987
Somalia[a]	1981	NC	CMTP	+	n/a	n/a	Dodds, 1989; Said, 1989
Tanzania	1974	NC	CMTP	+	+	+	Mahlck and Temu, 1989; Chale, 1983
Zimbabwe	1980	NC	CMTP	+	n/a	n/a	Gatawa, 1986
Indonesia	1985	PC	CMT	+-	+	+-	Nielsen and Djalil, '90
Nepal	1978	PC	CM	+	+	+	Okwudishu and Klasek, 1986; Anzalone and Mathema, 1989
Sri Lanka	1984	PC	CTP	+	+	+	Tatto, Nielsen and Cummings, 1990
Thailand[b]	1980	PC	CMT	n/a	+	n/a	Srisa-an, 1987
Brazil	1976	PC	CTP	+	+	+	Oliveira and Orivel
Caribbean	1983	PC	CMT	+-	+	+	Jennings, 1988
Palestinian Refugees	1964	PC	CT	+	+	+	Lyle, 1967

TYPE:
N = New Teacher
P = Practicing Teacher
C = Certificate Oriented
G = General (non certif)
U = University Level

MEDIA:
C = Correspondence
M = Media (radio, TV, cassettes)
T = Tutoring
P = Supervised Practice

RESULTS: + = Positive - = Negative = = Same as conventional +- = Ambiguous

[a] For Somali speaking refugees from Ethiopia.

[b] Based on figures for the university as a whole and not just the teacher training program.

As can be seen from the above, nine of the 15 DE projects were found to be relatively effective, four ambiguous (some aspects positive; some negative), one negative and one undetermined. On costs, three of the projects did not list relative costs; of the 12 that did, ten were less costly than alternatives and two were ambiguous or virtually the same. Finally, of the 11 projects for which cost-effectiveness ratios could be constructed, seven were judged to be cost-effective (compared to alternatives), two ambiguous, and two not cost-effective. In most cases, the assessments were based on subject matter achievement or "passes" on courses. In the few cases where teaching skills were measured the distance education mode appeared relatively less effective. Program drop-out seemed to be a problem in some cases of DE. Where this was true, it was sometimes factored into the cost estimate, which is what caused at least one project to lose its cost advantage. All of the programs in the table are certificate oriented (those which are not appear less rigorously evaluated). Only three were for new teachers and they were all found to be effective. There seemed to be no pattern (at this aggregate level) in the way in which the media used related to program costs or effectiveness.

Concerning costs, program size has had a critical effect on whether the programs are relatively inexpensive. DE programs with few participants (in the hundreds) have not been particularly economical; whereas those large enough to achieve economies of scale have been found to cost 1/8 to 2/3 as much as equivalent conventional programs. Cost recovery has also been a factor in distance education programs: in general they place a higher cost burden on their students than do conventional programs.[1]

These cost effectiveness comparisons are revealing, but are certainly only one kind of evidence of the merits of distance education programs. Another consideration is program coverage --the fact that DE has made training available to those who, because of isolation or lack of funds, would not otherwise have received any. As the World Bank evaluation team for the DE program in Kenya has remarked "it may be the only way of providing for most of those who wish to become qualified...It will require money the government can ill afford out of its hard-pressed educational budget. But it may be the only option within reach" (Hawkridge, et al., 1982). In addition, DE programs have been relatively successful in preventing teachers from abandoning difficult rural areas or the teaching profession in general. For example, Ayeni (1984) demonstrates that in Nigeria less than 10% of those trained at a distance leave the profession. In

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[1] Nettleton (1989) indicates that "unlike conventional institutions, distance programs are much more likely to charge fees, and depend, to a greater or lesser extent on some cost recovery." Nielsen and Djalil (forthcoming) show that the proportion of real costs borne by Open University teacher trainees is about twice that borne by those in conventional training programs. However, given lower total costs for the Open University, the absolute cost burden to the OU students is still lower than to those in conventional colleges.

Thailand, Kampirapakorn (1988) has shown that the net migration from rural to urban areas of those graduating from the Open University Elementary Education program was 4%; and for those completing the OU certificate in teaching program it was -5%. Finally, researchers in Indonesia (Djalil et al., 1988) and Nigeria (Tseja, 1989) have shown that teachers who finish DE training program experience an increase in social status in their communities. In Indonesia this is especially the case for those who live in isolated, rural areas. Such an increase in status is presumably one of the reasons that DE trained teachers are more likely than others -- those not trained at all or trained in conventional colleges -- to stay in the teaching force.

6. What are the preconditions for DE program success?

The hindsight gleaned from various evaluations and commentaries has created a sense of what is likely to lead to successful distance education projects. The most critical points seem to be the following:

a. Project planning and goal setting need to be thorough and realistic. Distance education projects, like any other, need careful planning and realistic goals. A decision to mount a distance education project should be based on a determination that this is the best approach to attaining certain educational objectives and not simply on a commitment to reducing costs or using interesting new technologies. It must also be based on a careful examination of technical and organizational feasibility. Some early distance education projects, most notably those using educational TV, failed because of an overestimation of the number of receivers that could be acquired and maintained, the degree to while signals could reach all parts of the country and the degree of access to prime broadcast times. Other projects have lost their ways when their target groups have disappeared, as in the case of a teacher education project focussed on upgrading a category of untrained teacher which eventually ceased to exist.

b. The benefits of the program and the demand for them must be clear. This deals with the motivation of people to participate in the program. Research on interactive radio programs shows that the programs are popular among teachers; teachers find that they have helped them increase their students' motivation to learn. Distance teacher education has shown less clear-cut evidence of teacher support. The least popular and effective programs seem to be those which attempt to improve teacher competence without considering their needs for more advanced credentials, professional recognition and growth (promotions) and increases in salaries. Without such incentives, programs have failed to attract enough participants to be cost-effective and/or experience high drop-out rates. Providing adequate financial incentives may be difficult when teacher salaries are already absorbing too high a share of the educational budget. Other kinds of incentives such as confirmation in a permanent position, or the chance for further higher education or promotions, or the granting of official awards and recognitions, or the opportunity to form social groups, may need to be created instead.

c. The instructional materials and systems need to be conceptually solid and refined through user feedback. One of the particular strengths of the IRI programs--that which set it apart from previous radio education programs--was that the materials and systems were based on solid principles of instructional design, geared towards holding student attention and interest. Especially critical was the "segmented" lesson structure (short topics, presented in a logical sequence) and the frequent pauses for student responses. Scripts were carefully written, field-tested and revised. Similar efforts have not always been put into the preparation of programs and materials for the adult learners, whether in those used in nonformal education or those used with teachers. Successful programs in nonformal education have often involved the learners themselves in the development of the programs and materials. In teacher education, the self-instructional systems have generally been modelled on those used in the United Kingdom or North America, based on somewhat ill-suited Western notions of the value of independent study (Moore, 1983; Bagnall, 1988). Investigations in Nepal (Anzalone, 1989), Indonesia (Nielsen and Djalil, 1989) and Papua New Guinea (Guy, 1987; Triadis, 1986) are showing that group learning processes are more consistent with local culture and are leading to the development of group-instructional or school-based approaches.

d. Program quality depends on the effective use of formative evaluation. Early approaches to distance education (for example, those using conventional radio instruction) have placed too much emphasis on what happens in the studio and on the air, and too little on what happens on the ground. Since much of what happens in distance education is, in fact, remote from the producers/ managers, systems of formative evaluation need to be set up in order to show how well the programs are serving the users. This has been a strong feature of many of the interactive radio programs and some of the teacher education programs (e.g., that at Sukhothai Thammathirat Open University of Thailand); those which have had it have been able to pin-point problems and situational changes and have made appropriate adjustments in quality and direction. In contrast, endeavors like the Schools Broadcasting Programme of Swaziland ran into difficulty and eventually collapsed, in part because of lack of feedback from schools which might have been used for program improvement (SERA, 1989).

e. Successful programs have involved strong participation of local groups and individuals in program implementation. This point includes everything from the involvement of classroom teachers in the interactive radio lessons, to the development of local study groups, to learner involvement in program development, to teacher choice on which instructional modules to take up. For example, successful use of interactive radio in the classroom has required teacher participation not only during the radio broadcasts but before (set-up) and after (organizing discussions and exercises). An extreme (and somewhat controversial) example of such teacher participation is in Honduras, where teachers "buy" membership in the radio education network (Development Communication Report, 1988).

Participation is even more critical in community-based or nonformal education programs. Programs like Radio Santa Maria demonstrate how grassroots organizations can become partners with the radio producers in organizing programs which are relevant to the needs and conditions of villagers. Other programs such as INCUPO in Argentina or CREFAL in Mexico have made extended the concept of learner participation to include consciousness raising activities and the transmission of learner produced programs (Petty et al, 1989).

In the field of teacher education, the Indonesian Open University has made some important discoveries concerning participation: namely, trainee participation in tutorials structured by the center declined over time, but such participation in local study groups formed by students increased (Djalil and Subandijo, 1988). In addition, private investors have begun to organize local study groups, offering open university learners intensive tutorial programs. In Brazil, reasons given for the success of Logos II are the flexibility given to the teacher trainees on choices related to course content and pace and the high level of autonomy given to community organizers and course providers (Oliveira & Orivel, forthcoming).

In sum, distance education programs have developed numerous ways of involving both learners and their communities in new forms of participation. Some of this is top-down and highly structured; some more bottom-up and spontaneous. Participation has often meant the creation of alliances between large-scale organizations, with their capacity for course production, and community organizations, with their capacity for learner mobilization and course delivery.

7. What are the main problems and constraints in the implementation of distance education programs and how have they been overcome?

Some of the main problems and constraints are as follows:

- Philosophical: Distance education has been criticized for deemphasizing the human and socialization aspects of education (Evans and Nation, 1989) and playing up the industrial (mass production) or banking (depositing knowledge) aspects. It is undeniable that a learner's interaction with programs and materials is not the same as that with other human beings, where dynamic interaction, dialogue, human values and emotions enter as important factors. Some programs for teacher training have responded to such criticisms by making residential programs for face-to-face training and peer interaction part of their courses. Furthermore, most programs directed towards basic learners (interactive radio and community-based programs) have attempted to place ever more emphasis on live discussion and problem-solving sessions. Both kinds of programs have acknowledged that distance methods are not appropriate for all kinds of learning (for example, those which involve motor skills development or value formation). What is rare and needed in this field are models which demonstrate how radio and correspondence approaches, the main tools of distance education, can be combined with face-to-face approaches to cover the full range of educational outcomes, cognitive, affective and psycho-motor.

- Cultural: Much of distance learning (especially that involving self-instruction) assumes a value system which is individualistic and which values the printed word, whereas most of its expected clients in Asia, Africa and Latin America come from cultures which emphasize communalism and the spoken word. This mismatch makes it difficult for some learners to progress on their own or to understand written explanations. Things are further complicated when some participants' mother tongue differs from the language of the DE program. The deployment of "three way" learning systems, involving a combination of radio, face-to-face discussion, and the use of printed or self-instructional materials, is one way to bridge this gap. Many DE programs still leave the learner in virtual isolation. New approaches to group learning in distance education--for example, those which involve the functioning of school-based learning groups--can be seen as a way of dealing with these problems.

- Social: Distance education programs are bedeviled by the perception that they are not as high in status as conventional programs. A charge of social inequality is levelled if it turns out that the advantaged get conventional--and relatively expensive--campus training and the disadvantaged get training through "second-rate" distance education programs. To deal with this, an increasing number of DE programs have been careful to cover the same curriculum as campus-based programs, and have developed built-in quality control mechanisms, such as using the country's best professionals to prepare materials and requiring their graduates to pass standardized tests. They have also made certain that program graduates receive qualifications equal to those obtained through conventional training and command equivalent salaries. Tracer studies and market surveys are now being used to document the occupational benefits obtained by DE program graduates (Kampirapakorn, 1988; Tseja, 1989). Some countries have developed "sandwiching" arrangements such that everyone receives some campus experience and some DE experience (e.g., Zimbabwe, see Gatawa, 1986). And, even if DE never attains the status of the elite schools, it may be the only option available in some remote areas and considered better than no training at all.

- Technical: The receipt of clear, consistent broadcast signals and the maintenance of equipment (repair; purchase of batteries) are found to be problems in some countries. Some of these are being overcome by the use of new satellite communication systems and durable, solar-powered radios. These problems solved, there are still the other problems of arranging and keeping access to appropriate air-time (day-time for pupils; evening for teachers). Access problems are increasingly being dealt with through the use of audio tapes as opposed to broadcasts. Moreover, teacher training programs which develop strong group learning processes may find that they do not need to use radio.

- Professional: Teachers and administrators are often hesitant to endorse DE programs for fear that they will be displaced by them. Although there may have been some basis for such fears in the grandiose plans of TV educators, the distance education programs reviewed here were all designed to support and enhance the role of classroom or community learning-center teachers. The greatest supporters of interactive radio, in fact, now appear to be the teachers themselves. However, there is some danger that excessive reliance on radio and other externally produced programs will contribute to the progressive "deprofessionalization" of teachers. Those who opt for interactive radio would do well to see it as part of a long-term plan in teacher development, with heavy reliance on radio for basic skills development being scaled back as the lest advantaged teachers learn how to design their own interactive lessons and gradually come to regard radio as one of many instructional resources available to them. As far as distance teacher education is concerned, a possible threat to conventional teacher training colleges could be defused by drawing them into the DE program in research and/or professional support roles.

- Economic: Where distance education is implemented in schools already having teachers and textbooks, its costs are generally considered "add-ons" (in the range of $0.25 to $1.00 per student for year). This is not, therefore, a cost saving option. Nevertheless, it will generally be cost-effective, since it appears to surpass less expensive approaches in its capacity to improve student achievement. Since this approach has relatively high fixed costs (those related to the production of programs), unit costs will decline as the number of students involved increase. This means that cost-conscious policy makers will want to spread the system as widely as possible, even across national borders. Such economies of scale are also important for DE programs for teacher education. As has been noted above, those which have enrollments in the hundreds will probably not be economical. Program managers will thus need to consider various incentives to keep enrollments up. In both kinds of DE projects, relatively high development costs can be reduced considerably when one country can adapt programs which have been produced in another. Such adaptations need to be done with care, however, since even math lessons, those most transferred because of low cultural content, have (sometimes subtle) culture-bound elements in them which need to be modified.

- Organizational: Distance educational programs are often developed outside of the mainstream educational management network. Problems come in trying to institutionalize DE programs within the bureaucracy and in providing routine financial support. This also implies developing routine systems of professional support for teachers who are either working with interactive radio in their classrooms or are going a distance training course. Any steps towards institutionalization and professional support require that the educational leadership of a country be firmly committed to and involved in the "ownership" of the program. Support at the school and district level has been created when supervisors and headmasters have been trained and given meaningful roles in tracking program progress. Some progress has and can be made also in integrating distance education programs. For example, programs of IRI and DE for teacher training have always been developed separately, often considered as competing options, even though they are both geared towards improving classroom instruction. Explorations are now being made of ways to use distance education to train teachers and administrators on ways to use interactive radio programs and other educational technologies in their classrooms.

- Political: Some critics have argued that distance education programs are too tied to the status quo; that they extend ever further and into ever more remote areas messages and values which are, explicitly or implicitly, antithetical to the kinds of structural changes that are needed for community development (see Petty et al, 1989). They argue the need for a curriculum which is more relevant to the local context and activities which are oriented towards structural change and social action. These criticisms are particularly directed to programs for adult learners. In highly politicized environments and in places rocked by serious social-class or ethnic conflict, centrally produced programs have frequently failed (e.g., radio mathematics in Nicaragua). Experience in Latin America has shown that local groups can produce popular radio education programs; however, there is little research evidence to show whether these are effective in improving basic skills.

-Personal: One of the strengths of distance education for the training of teachers and the education of adults is that participants can learn without interrupting their income flows. This means that they must study in their "spare time." For married men and women who have children at home or singles who have heavy family obligations this is time that they would also spend in household duties or in holding extra jobs. Some participants thus find themselves in the stressful situation of having to balance many demands on their time, with the result being that many eventually drop out. For many women the opportunities afforded by distance education are paradoxical: its "home-study" feature makes it available to those who are constrained by culture or economics from leaving their compounds, yet it is their very presence at home that makes it difficult for them to clear the time they need to study. To remedy this some programs have provided teachers with time off for training activities (e.g., in Sri Lanka, every Friday); others have scheduled significant activities during holidays; others have tried to organize support systems and courses on time management. Also, the willingness to bear the inevitable increase in stress and loss of secondary income increases as the incentives are perceived as worthwhile.

8. What about cross-national transfer and collaboration?

Compelling cases can be made for cross-national transfers and collaboration in the field of distance education. Expertise in distance education is scarce in the developing world and the production of high quality courses is both difficult and expensive. In addition, critical target groups (isolated primary school students or teachers) may be quite small in some countries, making economies of scale impossible. Given this, there is a growing tendency for developing countries to share resources through (in ascending order of complexity and pay-off): a) exchanging information on DE programs, b) teaching one another program development and management skills, c) forming research networks and/or conducting collaborative research, d) acquiring and adapting one another's courses, and e) entering into joint program development efforts.

Information exchange, training and research networking in DE have all been on the been on the upswing in recent years. Some of this has been the work of the International Council of Distance Education (ICDE), which has over 500 individual and institutional members in 50 countries, and which holds a world conference every three years, promotes research, and publishes the ICDE Bulletin. In addition, UNESCO and its regional offices have taken an active interest in distance education, organizing a variety of forums, publications and training activities; the United Nations University has set up a world documentation center and data bank at the Open University of the United Kingdom; and various regional organizations, such as the African Association for Correspondence Education, have begun to function. For those countries linked to the British Commonwealth, a more activist network for the exchange of information and expertise, the Commonwealth of Learning (headquartered in Vancouver, British Columbia) is beginning to take shape. National agencies or organizations which have supported information exchange, training and research are, among others, the International Extension College, ODA and the British Council of the UK (especially active in Commonwealth Africa); USAID, which funds a multi-faceted Radio Education Project and the Clearinghouse on Development Communication (publishes the Development Communication Report), both of which emphasize interactive radio; the German Foundation for International Development (sponsors training activities in South and East Africa); and the Canadian agencies CIDA (bilateral arrangements for institutional support) and IDRC (research networking on distance education in Southeast Asia). There has also been a proliferation of distance education journals, such as Open Learning published by the Open University of the UK (formerly Learning at a Distance), The British Journal of Educational Technology, The Australian and South Pacific Distance Education Journal, Distance Education (Australia), The American Journal of Distance Education, the Journal of Distance Education (Canada) and the Pakistan Journal of Distance Education. It is worth noting that with the exception of the journal from Pakistan these journals carry relatively few articles on/from Third World Countries.

Acquiring and adapting one another's courses-or course transfer have been the most compelling forms of cross-national exchange. The rationale has been largely a matter of quality control (high quality programs are difficult to create from scratch), manpower shortages (expertise to create them is in short supply) and economics. On the latter point, it is estimated that developing a series of high quality interactive radio lessons for one grade costs between $500,000 and $1,000,000, whereas adapting a series of existing radio lessons costs between $100,000 and $300,000 (Anzalone, 1989). In fact, virtually all interactive radio programs have been adaptations, to some degree or another, of the Radio Mathematics project pioneered in Nicaragua. Some adaptations have been fairly straight-forward, as in the transfer of Radio Math from the Nicaraguan setting to Bolivia, or the Costa Rican use of "mental arithmetic" tapes developed in Honduras; some are somewhat more challenging, as in the transfer of Radio Math from a Latin American setting to Thailand; and some extremely demanding, as when both subject matter and country/cultural context are new, which was the case with Radio Language Arts in Kenya and Radio Science in Papua New Guinea. In the latter cases what was transferred was not courseware, but the interactive radio model. Since such adaptations required considerable skill with the model and some difficult problem solving, heavy doses of technical assistance were needed in order to maintain the high level of quality expected. And, in fact, it appears that quality and effectiveness have been maintained across countries and subject areas (Friend, Galda and Searle, 1986).

Cross-national transfers have also been found in DE courses for adult basic education. As was mentioned earlier, the ACPO model has been used as the basis for some 20 other NFE projects in Latin America. Recently, courses with more of an activist flavor have evolved and spread through the influence of the Asociacion Latinoamericana de Escuelas Radiofonicas (ALER) (Latin American Association of Radiophonic Schools) and groups linked with the Catholic Church (Petty, et al., 1989). Such diffusion has been mostly confined to Latin America, being closely associated with the politics of that region. It appears to be informal and spontaneous, with none of the pains-taking quality control features of the interactive radio replications.

A considerable amount of transfer of materials and technology has also taken place at the tertiary level, in the realm of distance education for teacher training. The premiere distance higher education institution of modern times, the Open University of the UK, has been used as a model by many Asian countries (e.g., Pakistan, Sri Lanka, and, to some extent, Indonesia). In this case, what has been transferred is not so much courseware but instructional systems and course structures. Since syllabi differ widely from country to country, each has created it own courses. It is quite common, however, for existing courses and instructional materials to be used as examples of content and style in local or regional training programs for course writers. (Dodds and Inquai, 198?; Mazrui, Matiru, and Gachuhi, 1987). Less common, but holding out considerable promise, is the training of distance educators themselves through distance education, which is now being done collaboratively in 10 countries in Latin through the Regional Network of Training, Innovation and Research in the Planning and Management of Programs of Basic Education and Literacy (REPLAD) with UNESCO support (Petty et al., 1989). Experiments are also underway in Latin America to use distance education to train teachers in the use of interactive radio (Ministry of Education, Costa Rica, 1989).

Some actual course sharing has also taken place in certain contexts, often as a stop-gap measure. For example, the Mauritius College of the Air, the Botswana Extension College and the Lesotho Distance Teaching Center all used courses from the UK (with the help of the International Extension College) as a stop-gap measure until they were able to produce their own courses (Dodds and Inquai, 198?). Course swapping among Anglophone African countries has also taken place through the facilitation of the IEC. At the extreme, in Hong Kong, the Open College of University of East Asia (now the Hong Kong Open Learning Institute) has been characterized by its director as "unashamedly parasitical," since its courses are almost all imported from other countries (Swift, 1986).

Joint program development is a more complex form of sharing which has also seen some breakthroughs in recent years. It appears particularly well suited for small neighboring countries which use the same language and follow more or less the same syllabus. Such conditions have led to the establishment of the University of South Pacific and the University of the West Indies (Coldevin, 1989). The former university covers 11 independent island states, comprising a total population of about 1.6 million people. It now offers a four-stage in-service teacher training program leading to a B. Ed. which uses a unique blend of correspondence materials, face-to-face sessions during school vacations and satellite audio teleconferencing (for distance tutorial sessions). The University of West Indies serves 14 English-speaking Caribbean nations through programs of distance education. Its Distance Teaching Experiment (UWIDITE) offers in-service teacher training leading to a Certificate of Education using text materials, tele-lectures (received at local extension centers) and teleconferencing. Another example comes from Anglophone West Africa, where four countries (Liberia, Ghana, Nigeria and Sierra Lione), in co-operation with the West African Examinations Council, jointly produced and administered a course to train the teacher trainers in the subtleties of modern mathematics (Dodds and Inquai, 198?). In all of these examples, courses which would have been impossibly expensive if they had been developed by the individual small nation, became affordable because of distance education and the economies of scale achieved through joint program development and implementation.

In summary, it is clear that a considerable amount of cross-national exchange is taking place among distance educators in the Third World. Some of this is based upon the desire to minimize development cost, some to increase numbers to the point that economies of scale are possible, some to assure relatively high quality courses, and some to keep abreast of changes in this dynamic field. Currently, much of this exchange (with the exception of the spontaneous transfers in nonformal education in Latin America) is sponsored, funded, and even initiated by First World intermediaries or funding agencies. Although this has helped both sides to build constructive relationships and save resources, the high degree of dependency on the First World countries which this has engendered has not been healthy. The lack of spontaneous South-South interchange in this field is compounded by the paucity of information--especially research and publications--by Third World nationals. One prominent Asian distant educator has seen this as a reflection of a development sequence, which goes form early mobilization/survival to maturity/institutionalization. Now ten to twenty years into the DE fraternity Third World country programs are now moving from early mobilization to a phase of "consolidation," during which research, publication and international networking are becoming more prominent (Dhanarajan, 1984). The stronger national DE centers, such as the College of Adult and Distance Education of the University of Nairobi, and the Sukhothai Thammathirat Open University of Thailand, can be expected and encouraged to take leading roles in such endeavors.

9. To what extent are distance education programs sustainable over time?

The sustainability of distance education programs for primary education improvement is often a paradoxical issue. Since so many DE programs are created as stop-gap measures, the successful programs are theoretically those which eliminate the reason for their existence. This can be illustrated by a simple example: Tanzania, in a effort to attain universal primary education in the mid-1970's, created a crash program to recruit 45,000 new teachers and to train them largely through distance education. By 1979 the program had essentially reached its goal and was closed.

Those programs which are mounted in order to clear a backlog of untrained teachers, or to reach school drop-outs, or provide instruction until schools and teachers are available are, by nature, temporary. That is, as long as other parts of the system are operating effectively: namely, preservice training is meeting the demands for competent, new teachers; the numbers of new drop-outs are decreasing; and schools are reaching the remotest areas. For such temporary programs three options are discernable: first, programs fulfil their purposes and are closed (as in the example above); second, programs have been perpetuated largely because other parts of the education system are not operating effectively and/or conditions change; and third, programs themselves change, finding new roles and missions.

The program in Tanzania is an example of a limited-term project of the first type. Similarly, the distance education program for non-graduate teachers in Sri Lanka is expected to last only until the backlog of untrained teachers (about 17,000 as of 1988) is cleared. An example of the second kind of "limited program" is that mounted in Swaziland for the purpose of upgrading 600 unqualified teachers in three years. By the end of this period other new kinds of untrained teachers were identified and the project was renewed for another three years; further changes in the target group and program kept it operating for another six years. Another example of the same kind is the program mounted in Kenya for unqualified teachers in 1967. It achieved its original goals within a few years and was closed in 1974, but not for long. That year school fees were eliminated and in 1985 an eighth year was added to what was previously seven years of primary education. The dramatic increases in enrollment that followed these reforms brought new untrained teachers into the force, and the untrained teacher program was revived, this time in a new institutional setting and with a larger task than before. It now seems that this program will be sustained indefinitely, becoming in the words of Coldevin (1988), "a quick fix that stuck."

Programs which have found new roles and missions are seen in Indonesia, Nepal and Zimbabwe. In Indonesia an Open University program for upgrading lower secondary teachers was beginning to play itself out when the government decided that all primary school teachers should be upgraded to that same level. The University is now adapting its program for use by up to 400,000 teachers. In Nepal, a radio education program originally designed to provide a limited number of teachers with a "school leaving certificate" was changed radically when the relevant category of teacher was eliminated (i.e., those without the certificate could no longer teach). The program is now being retooled to provide Basic Teacher Training through radio to up to 77,000 teachers throughout the country. In Zimbabwe, the Zimbabwe Integrated Teacher

Education Course (ZINTEC) was established in 1981 to cope with an acute shortage of trained teachers using a unique blend of distance education and on-campus instruction. When the emergency conditions abated the country decided to absorb ZINTEC distance education features into its conventional teacher education programs.

Programs like RADECO, which provide alternative means of gaining a formal education, might also be considered temporary, bridging the gap until conventional schools are available for everyone and compulsory education is enforced. This was the case, for example, with the Community Learning Center aspect of the PAMONG Project in Indonesia, which provided an alternative self-instructional path to a primary school diploma, but has almost disappeared now that virtually all communities have well-attended formal schools (Nielsen and Cummings, forthcoming). In Santo Domingo, however, where RADECO is being implemented, the trend seems to be in the opposite direction. In one case, where a RADECO school was taken over by a new regular school, the parents in the community agitated to have the RADECO school restored. Recognizing the effectiveness of RADECO's interactive radio programs, education ministry officials are now considering the replacement of ineffective regular schools with RADECO schools. In addition, there are plans to use RADECO throughout the formal school system for teaching math and in the urban areas to reach children in marginal (squatter) communities. Such plans have not been implemented yet, and given the slow rate of growth, the heavy supervision requirements, and the heavy dependence on outside funding of RADECO schools so far, it is not clear whether RADECO can be implemented and sustained on such a large scale. But if resources can be found and more streamlined systems developed, RADECO will cease being an alternative system and become an integral part of the mainstream.

This leads us to a discussion of the sustainability of interactive radio for in-school use. Unlike the other programs we have discussed, there is no sense in the IR projects reviewed that they are fulfilling a temporary, stop-gap function. Most have aspired to wide-spread application for an indefinite length of time within the educational mainstream after a rigorous pilot-testing phase. How have they fared? The record so far appears to be uneven. Of nine USAID-supported projects set up during 1973 and 1988, two were not extended beyond the pilot phase, two have been "institutionalized," and five are either in the research or pilot stage as follows:

COUNTRY	DURATION	SUBJECT	LEVEL	STATUS	TYPE*
NicaraguK	1973-79	Math	Gr 1-4	Completed	1
enya	1980-85	English	Gr 1-3	Completed	1
Honduras	1978-90	Arith	Gr 1-4	Pilot	1
Bolivia	1987-90	Math	Gr 1-3	Pilot	2
		Health	Gr 4		1
Ecuador	1988	Math	Gr 1-6	Research	2
Lesotho	1987-89	English	St I-III	Pilot	2
Papua N. Guinea	1986-90	Science	Gr 4-6	Research	1
Thailand	1980-pr	Math	Gr 1-3	InstitutionIns	2
Costa Rica	1988-pr	Arith	Gr 1	titution	3

*TYPE: 1=New Program; 2=Adaptation of existing program; 3=Replication of existing program.

(Source: Development Communications Report 1988/Supplement)

The two projects which did not make it past the pilot phase, those in Nicaragua and Kenya, were both highly successful technically. Discontinuation appears to have been based on political (Nicaragua) or bureaucratic (Kenya) reasons. Concerning the projects which are still either research or pilots, they are all too recent for an assessment of sustainability to be made.

Of the two which have been institutionalized, the project in Thailand deserves special treatment. It was developed during 1979-1984 in the context of a large World Bank project which provided radio education programs for much of the primary school curriculum, largely as a means of diminishing disparities in school quality across regions. Program developers decided that the interactive mode was particularly suitable for instruction in one of the two fundamentals, mathematics, and so adapted the Radio Math project developed in Nicaragua. The result of the math pilot project evaluation showed that radio program learners out-scored those in conventional schools, particularly those in the relatively poor Northeast. With those positive findings, it was made part of a radio learning package that was sponsored by the National Commission on Primary Education and disseminated nation-wide (to about 80% of primary schools) using a network of 11 radio stations and funded under the routine annual budget. Included in this dissemination are the distribution of supplementary materials, teacher training and administrative support. In 1987, two years after the nation-wide dissemination began, evaluators found that about 45% of primary schools nationwide were using the in-school radio programs. The fall off in use seems to be, at least in part, a result of the fact that the "budget for in-school radio has never been earmarked, hindering the development and the strengthening of the program in terms of the printing of relevant and supplementary materials, the repair and maintenance of radios, and the training courses for administrators and teachers" (NEC, 1989).

Beyond this, it is not clear whether such in-school programs can be sustained at original levels year after year. Teachers like those in Thailand have been encouraged in a number of ways to use active or interactive processes in the classroom. One spill-over effective of interactive radio is the fact that it helps them, through modeling, to become better at this. It may be that after a few years of working with interactive radio they feel confident in being able to manage effective interactions themselves without the help of radio -- or they use radio selectively for special enrichment or remediation activities (one of the ways the program has evolved in Thailand).

The above issues underscore the apparent lack of strategic planning by developing country educators and their first world counterparts in the use of distance education for classroom instruction and teacher upgrading. Interactive radio courses of proven quality and technical excellence have been introduced but without a clear sense of how they fit into the overall system of basic education and its improvement. Community based systems like RADECO have been mounted and are providing a foundation of basic skills but it is not yet clear whether such programs have the capacity to provide diplomas and certificates needed for certain kinds of educational and occupational mobility. Teacher training programs using distance education have provided cost-effective means of teacher upgrading but generally lie outside the mainstream of higher education and have rarely established a vision of life-long education and professional growth for teachers. In short, most of the programs reviewed here are ad hoc in nature.

If policy-makers and program developers were to think more strategically, distance education programs could be integrated more fully into long-range plans of educational development. This would involve careful consideration how DE programs relate to such issues as the career development of teachers, instructional design and curriculum development, other educational technologies to be employed, and the growth of self-help groups at the school and community level. The unique attributes and comparative advantages offered by distance education would have greater sustainability if they were seen as part of an overall program of educational change and development.

10. What are some of the waves of the future in distance education?

Distance education is a dynamic field, growing and evolving at a dizzying pace. DE programs for extending and improving basic education are pressing forward on two kinds of frontiers: hardware and software. The hardware frontier involves the experimentation with new information technologies, such as computers, interactive video, and the use of telecommunications. Although such hardware should be available to educators everywhere, and steps taken to make it feasible and affordable even in the poorest countries, it appears that the most important innovations in the foreseeable future will be in the realm of software--or learning systems development.

There has already been a substantial change in the way in which DE systems have been organized and used: First as stop-gap measures, then as alternative systems, and now increasingly as part of the mainstream of basic education delivery. On the cutting edge are programs where distance education had been accepted for use in virtually all forms of teacher education, as in Zimbabwe. Another cutting edge, is in the use of distance education (specifically interactive radio) in multi-grade teaching. Experiments in the remote areas of Ecuador (Development Communication Report, 1988), where one-room schools are the norm, may provide a break-through for this kind of application, just as the IMPACT schools in Southeast Asia (Philippines; Indonesia; Malaysia) did in the 1970's.

One should not overlook the potential of DE institutions in developing short-term, intensive courses. The open universities in Asia (e.g., those in Thailand, Pakistan, and Indonesia), having been recognized as producers of high quality "courseware," are increasingly being asked by government agencies and private institutions (e.g., the Bangkok Bank) to train their employees through intensive, short term courses. Moreover, researchers in Thailand (Department of Teacher Education, 1987) have shown an intensive six-day course, focussing on a limited number of research-derived concepts and skills, to be very effective in improving both teacher effectiveness and student achievement. Ultimately courses which use distance education in conveying sharply focussed, short-term training may be even more effective in changing teacher and administrator behaviors than longer-term certification programs, most of which are still rather theory-oriented and old-fashioned.

New hybrid programs are also beginning to appear, programs which combine the advantages of field-based training and distance education. In Africa, much more than in Asia and Latin America, there is a tendency to intersperse distance education by correspondence with short-term residential programs. The former is also usually reinforced by school visits and coaching by traveling supervisors/trainers. Such organizational elements seem capable of taking the place of mass media, which were once seen as necessary DE components for explaining difficult concepts, demonstrating teaching behaviors and promoting teacher morale and motivation. Increasing face-to-face aspects of DE programs is admittedly expensive, but such costs could be off-set by scaling back on radio/TV broadcasts, which in Africa have always been plagued by technical problems anyway.

There is yet another hybrid variation, which involves the use of school clusters. School clusters, which promote the sharing of resources among neighboring schools, are now being used successfully in a number of countries to strengthen basic education in rural areas (Bray, 1987; Cummings, Gunawardena and Williams, 1990; Wheeler _et at._, in Press). One advantage is their capacity to deliver field-based or school-based/school-focused teacher training (Ansari _et al._, 1987; Bolam, 1982; Biniakunu, 1982; Bala and Gow, 1988). Such organizational features allow teachers to come together for the kind of intensive face-to-face training mentioned above and also allow them to observe and improve one another's teaching skills. To keep them up to standard in content knowledge (a deficiency found in one field-based system in Pakistan, see Ansari et al., 1986) and to assure quality control across clusters (a concern in Thailand, see Wheeler et al.), centrally-developed distance education programs using print or radio could be used, with cluster teachers studying together in small groups. The resulting hybrid, a combination of school-focused and distance teacher education operating in a school cluster setting (Nielsen, 1989), is expected to be tried out in countries like Indonesia on a large scale in the near future.

A final hybrid involves the integration of interactive radio and distance teacher training. Over the years, the use of radio in classrooms and the training of teachers at a distance have been regarded as alternative means of achieving quality improvements in basic education. Once interactive radio is operating in the classroom, very little new teacher education was thought to be necessary. Recently, however, it has become clear that teachers do need professional support in the use of radio programs; in addition, they must teach subjects (sports, arts) and conduct other aspects of instructional management (organize, evaluate, etc.) that radio cannot cover. In Costa Rica and in Papua New Guinea programs are now being developed which use distance education (radio and print) to train teachers before and during the delivery of in-class radio programs (see Radio Education Project). Program managers are optimistic that this will add to the cost-effectiveness of distance delivery systems.

Summary

Programs of distance education have been used with considerable success in increasing learner access to basic education and improving its quality. A renewed interest in such programs has come with the development of interactive radio programs for use both in and out of school and with the development of teacher training programs which combine the assets of correspondence programs with those of radio and face-to-face tutorials. Although such programs by no means represent a panacea, there is firm evidence that they are effective in promoting student and teacher learning gains and that they are more economical than more conventional paths to quality improvement outcomes. Numerous problems and obstacles have been faced in the development and implementation of distance education programs. Many of them have been overcome in creative ways; others are still the object of experimentation and creative adaptation. Although originally introduced as stop-gap measures to be used until a fully trained teacher force could be created, it now seems that distance education programs are moving into the mainstream of educational innovation and reform, opening new paths towards quality education for all.

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